

**2022-2026 Technician Class
FCC Element 2 Question Pool
Effective 7/01/2022 – 6/30/2026**

SUBELEMENT T2 - OPERATING PROCEDURES - [3 Exam Questions - 3 Groups]

T2A - Station operation: choosing an operating frequency, calling another station, test transmissions;
Band plans: calling frequencies, repeater offsets

T2A01

What is a common repeater frequency offset in the 2 meter band?

- A. Plus or minus 5 MHz
- B. Plus or minus 600 kHz**
- C. Plus or minus 500 kHz
- D. Plus or minus 1 MHz

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T2A02

What is the national calling frequency for FM simplex operations in the 2 meter band?

- A. 146.520 MHz**
- B. 145.000 MHz
- C. 432.100 MHz
- D. 446.000 MHz

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T2A03

What is a common repeater frequency offset in the 70 cm band?

- A. Plus or minus 5 MHz**
- B. Plus or minus 600 kHz
- C. Plus or minus 500 kHz
- D. Plus or minus 1 MHz

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T2A04

What is an appropriate way to call another station on a repeater if you know the other station's call sign?

- A. Say "break, break," then say the station's call sign
- B. Say the station's call sign, then identify with your call sign**
- C. Say "CQ" three times, then the other station's call sign
- D. Wait for the station to call CQ, then answer

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T2A05

How should you respond to a station calling CQ?

- A. Transmit "CQ" followed by the other station's call sign
- B. Transmit your call sign followed by the other station's call sign
- C. Transmit the other station's call sign followed by your call sign
- D. Transmit a signal report followed by your call sign

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T2A06

Which of the following is required when making on-the-air test transmissions?

- A. Identify the transmitting station
- B. Conduct tests only between 10 p.m. and 6 a.m. local time
- C. Notify the FCC of the transmissions
- D. All these choices are correct

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T2A07

What is meant by "repeater offset"?

- A. The difference between a repeater's transmit and receive frequencies
- B. The repeater has a time delay to prevent interference
- C. The repeater station identification is done on a separate frequency
- D. The number of simultaneous transmit frequencies used by a repeater

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T2A08

What is the meaning of the procedural signal "CQ"?

- A. Call on the quarter hour
- B. Test transmission, no reply expected
- C. Only the called station should transmit
- D. Calling any station

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T2A09

Which of the following indicates that a station is listening on a repeater and looking for a contact?

- A. "CQ CQ" followed by the repeater's call sign
- B. The station's call sign followed by the word "monitoring"
- C. The repeater call sign followed by the station's call sign
- D. "QSY" followed by your call sign

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T2A10

What is a band plan, beyond the privileges established by the FCC?

- A. A voluntary guideline for using different modes or activities within an amateur band
- B. A list of operating schedules
- C. A list of available net frequencies
- D. A plan devised by a club to indicate frequency band usage

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T2A11

What term describes an amateur station that is transmitting and receiving on the same frequency?

- A. Full duplex
- B. Diplex
- C. Simplex
- D. Multiplex

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T2A12

What should you do before calling CQ?

- A. Listen first to be sure that no one else is using the frequency
- B. Ask if the frequency is in use
- C. Make sure you are authorized to use that frequency
- D. All these choices are correct

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T2B – VHF/UHF operating practices: FM repeater, simplex, reverse splits; Access tones: CTCSS, DTMF; DMR operation; Resolving operational problems; Q signals

T2B01

How is a VHF/UHF transceiver's "reverse" function used?

- A. To reduce power output
- B. To increase power output
- C. To listen on a repeater's input frequency
- D. To listen on a repeater's output frequency

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T2B02

What term describes the use of a sub-audible tone transmitted along with normal voice audio to open the squelch of a receiver?

- A. Carrier squelch
- B. Tone burst
- C. DTMF
- D. CTCSS

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T2B03

Which of the following describes a linked repeater network?

- A. A network of repeaters in which signals received by one repeater are transmitted by all the repeaters in the network
- B. A single repeater with more than one receiver
- C. Multiple repeaters with the same control operator
- D. A system of repeaters linked by APRS

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T2B04

Which of the following could be the reason you are unable to access a repeater whose output you can hear?

- A. Improper transceiver offset
- B. You are using the wrong CTCSS tone
- C. You are using the wrong DCS code
- D. All these choices are correct

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T2B05

What would cause your FM transmission audio to be distorted on voice peaks?

- A. Your repeater offset is inverted
- B. You need to talk louder
- C. You are talking too loudly
- D. Your transmit power is too high

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T2B06

What type of signaling uses pairs of audio tones?

- A. DTMF
- B. CTCSS
- C. GPRS
- D. D-STAR

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T2B07

How can you join a digital repeater's "talkgroup"?

- A. Register your radio with the local FCC office
- B. Join the repeater owner's club
- C. Program your radio with the group's ID or code
- D. Sign your call after the courtesy tone

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T2B08

Which of the following applies when two stations transmitting on the same frequency interfere with each other?

- A. The stations should negotiate continued use of the frequency
- B. Both stations should choose another frequency to avoid conflict
- C. Interference is inevitable, so no action is required
- D. Use subaudible tones so both stations can share the frequency

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T2B09

Why are simplex channels designated in the VHF/UHF band plans?

- A. So stations within range of each other can communicate without tying up a repeater
- B. For contest operation
- C. For working DX only
- D. So stations with simple transmitters can access the repeater without automated offset

T2B10

Which Q signal indicates that you are receiving interference from other stations?

- A. QRM
- B. QRN
- C. QTH
- D. QSB

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T2B11

Which Q signal indicates that you are changing frequency?

- A. QRU
- B. QSY
- C. QSL
- D. QRZ

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T2B12

What is the purpose of the color code used on DMR repeater systems?

- A. Must match the repeater color code for access
- B. Defines the frequency pair to use
- C. Identifies the codec used
- D. Defines the minimum signal level required for access

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T2B13

What is the purpose of a squelch function?

- A. Reduce a CW transmitter's key clicks
- B. Mute the receiver audio when a signal is not present
- C. Eliminate parasitic oscillations in an RF amplifier
- D. Reduce interference from impulse noise

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T2C – Public service: emergency operations, applicability of FCC rules, RACES and ARES, net and traffic procedures, operating restrictions during emergencies, use of phonetics in message handling

T2C01 [97.103(a)]

When do FCC rules NOT apply to the operation of an amateur station?

- A. When operating a RACES station
- B. When operating under special FEMA rules
- C. When operating under special ARES rules
- D. FCC rules always apply

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T2C02

Which of the following are typical duties of a Net Control Station?

- A. Choose the regular net meeting time and frequency
- B. Ensure that all stations checking into the net are properly licensed for operation on the net frequency
- C. Call the net to order and direct communications between stations checking in
- D. All these choices are correct

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T2C03

What technique is used to ensure that voice messages containing unusual words are received correctly?

- A. Send the words by voice and Morse code
- B. Speak very loudly into the microphone
- C. Spell the words using a standard phonetic alphabet
- D. All these choices are correct

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T2C04

What is RACES?

- A. An emergency organization combining amateur radio and citizens band operators and frequencies
- B. An international radio experimentation society
- C. A radio contest held in a short period, sometimes called a "sprint"
- D. An FCC part 97 amateur radio service for civil defense communications during national emergencies

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T2C05

What does the term "traffic" refer to in net operation?

- A. Messages exchanged by net stations
- B. The number of stations checking in and out of a net
- C. Operation by mobile or portable stations
- D. Requests to activate the net by a served agency

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T2C06

What is the Amateur Radio Emergency Service (ARES)?

- A. A group of licensed amateurs who have voluntarily registered their qualifications and equipment for communications duty in the public service
- B. A group of licensed amateurs who are members of the military and who voluntarily agreed to provide message handling services in the case of an emergency
- C. A training program that provides licensing courses for those interested in obtaining an amateur license to use during emergencies
- D. A training program that certifies amateur operators for membership in the Radio Amateur Civil Emergency Service

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T2C07

Which of the following is standard practice when you participate in a net?

- A. When first responding to the net control station, transmit your call sign, name, and address as in the FCC database
- B. Record the time of each of your transmissions
- C. Unless you are reporting an emergency, transmit only when directed by the net control station
- D. All these choices are correct

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T2C08

Which of the following is a characteristic of good traffic handling?

- A. Passing messages exactly as received
- B. Making decisions as to whether messages are worthy of relay or delivery
- C. Ensuring that any newsworthy messages are relayed to the news media
- D. All these choices are correct

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T2C09

Are amateur station control operators ever permitted to operate outside the frequency privileges of their license class?

- A. No
- B. Yes, but only when part of a FEMA emergency plan
- C. Yes, but only when part of a RACES emergency plan
- D. Yes, but only in situations involving the immediate safety of human life or protection of property

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T2C10

What information is contained in the preamble of a formal traffic message?

- A. The email address of the originating station
- B. The address of the intended recipient
- C. The telephone number of the addressee
- D. Information needed to track the message

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T2C11

What is meant by "check" in a radiogram header?

- A. The number of words or word equivalents in the text portion of the message
- B. The call sign of the originating station
- C. A list of stations that have relayed the message
- D. A box on the message form that indicates that the message was received and/or relayed

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