

**General Class Study Group Chapter 2**  
**Operating Procedures Practice**

**Manual Pages 1 and 2.**

G2A01

1. Which sideband is commonly used for 20-meter phone operation?
- A. Upper
  - B. Lower
  - C. Amplitude compandored
  - D. Double

G2A02

2. Which sideband is commonly used on 3925-kHz for phone operation?
- A. Upper
  - B. Lower
  - C. Amplitude compandored
  - D. Double

G2A03

3. Which sideband is commonly used for 40-meter phone operation?
- A. Upper
  - B. Lower
  - C. Amplitude compandored
  - D. Double

G2A04

4. Which sideband is commonly used for 10-meter phone operation?
- A. Double
  - B. Lower
  - C. Amplitude compandored
  - D. Upper

G2A05

5. Which sideband is commonly used for 15-Meter phone operation?
- A. Upper
  - B. Lower
  - C. Amplitude compandored
  - D. Double

G2A06

6. Which sideband is commonly used for 17-Meter phone operation?
- A. Amplitude compandored
  - B. Lower
  - C. Upper
  - D. Double

G2A07

7. Which of the following modes of voice communication is most commonly used on the High Frequency Amateur bands?

- A. Frequency modulation (FM)
- B. Amplitude modulation (AM)
- C. Single sideband (SSB)
- D. Phase modulation (PM)

G2A08

8. Why is the single sideband mode of voice transmission used more frequently than Amplitude Modulation (AM) on the HF amateur bands?

- A. Single sideband transmissions use less spectrum space
- B. Single sideband transmissions are more power efficient
- C. No carrier is transmitted with a single sideband transmission
- D. All of these choices are correct

G2A09

9. Which of the following statements is true of a lower sideband transmission?

- A. It is called lower sideband because the lower sideband is greatly attenuated
- B. It is called lower sideband because the lower sideband is the only sideband transmitted, since the upper sideband is suppressed
- C. The lower sideband is wider than the upper sideband
- D. The lower sideband is the only sideband that is authorized on the 160-, 75- and 40-meter amateur bands

G2A10

10. Which of the following statements is true of an upper sideband transmission?

- A. Only the upper sideband is transmitted, since the lower sideband is suppressed
- B. The upper sideband is greatly attenuated as compared with the carrier
- C. The upper sideband is greatly attenuated as compared with the lower sideband
- D. Only the upper sideband may be used for phone transmissions on the amateur bands with frequencies above 14 MHz

G2A11

11. Why do most amateur stations use lower sideband on the 160-, 75- and 40-meter bands?

- A. The lower sideband is more efficient at these frequency bands
- B. The lower sideband is the only sideband legal on these frequency bands
- C. Because it is fully compatible with an AM detector
- D. Current amateur practice is to use lower sideband on these frequency bands

G2E13

12. Which of the following would indicate the completion of the transmitting of a formal message when using phone?

- A. The phrase, "End of message"

- B. The word "Break"
- C. The Q-signal "QSL?"
- D. The Q-signal "QRV"

### **Manual pages 2 to 4**

G2B01

13. If you are the net control station of a daily HF net, what should you do if the frequency on which you normally meet is in use just before the net begins?
- A. Reduce your output power and start the net as usual
  - B. Increase your power output so that net participants will be able to hear you over the existing activity
  - C. Conduct the net on a clear frequency 3 to 5-kHz away from the regular net frequency
  - D. Cancel the net for that day

G2B02

14. If a net is about to begin on a frequency which you and another station are using, what should you do?
- A. As a courtesy to the net, move to a different frequency
  - B. Increase your power output to ensure that all net participants can hear you
  - C. Transmit as long as possible on the frequency so that no other stations may use it
  - D. Turn off your radio

G2B03

15. If propagation changes during your contact and you notice increasing interference from other activity on the same frequency, what should you do?
- A. Tell the interfering stations to change frequency, since you were there first
  - B. Report the interference to your local Amateur Auxiliary Coordinator
  - C. Move your contact to another frequency
  - D. Turn on your amplifier to overcome the interference

G2B04

16. When selecting a CW transmitting frequency, what minimum frequency separation from a contact in progress should you allow to minimize interference?
- A. 5 to 50 Hz
  - B. 150 to 500 Hz
  - C. 1 to 3 kHz
  - D. 3 to 6 kHz

G2B05

17. When selecting a single-sideband phone transmitting frequency, what minimum frequency separation from a contact in progress should you allow (between suppressed carriers) to minimize interference?
- A. 150 to 500 Hz
  - B. Approximately 3 kHz
  - C. Approximately 6 kHz

D. Approximately 10 kHz

G2B06

18. When selecting a RTTY transmitting frequency, what minimum frequency separation from a contact in progress should you allow (center to center) to minimize interference?

- A. 60 Hz
- B. 250 to 500 Hz
- C. Approximately 3 kHz
- D. Approximately 6 kHz

G2B07

19. What is a band plan?

- A. A voluntary guideline beyond the divisions established by the FCC for using different operating modes within an amateur band
- B. A guideline from the FCC for making amateur frequency band allocations
- C. A plan of operating schedules within an amateur band published by the FCC
- D. A plan devised by a club to best use a frequency band during a contest

G2B08

20. What is another name for a voluntary guideline that guides amateur activities and extends beyond the divisions established by the FCC for using different operating modes within an amateur band?

- A. A "Band Plan"
- B. A "Frequency and Solar Cycle Guide"
- C. The "Knowledgeable Operator's Guide"
- D. The "Frequency Use Guidebook"

G2B09

21. When choosing a frequency for Slow-Scan TV (SSTV) operation, what should you do to comply with good amateur practice?

- A. Review FCC Part 97 Rules regarding permitted frequencies and emissions
- B. Follow generally accepted gentlemen's agreement band plans
- C. Before transmitting, listen to the frequency to be used to avoid interfering with an ongoing communication
- D. All of these choices

G2B10

22. When choosing a frequency for radioteletype (RTTY) operation, what should you do to comply with good amateur practice?

- A. Review FCC Part 97 Rules regarding permitted frequencies and emissions
- B. Follow generally accepted gentlemen's agreement band plans
- C. Before transmitting, first listen to the frequency to be used to avoid interfering with an ongoing communication
- D. All of these choices

G2B11

23. When choosing a frequency for HF Packet operation, what should you do to comply with good amateur practice?

- A. Review FCC Part 97 Rules regarding permitted frequencies and emissions

- B. Follow generally accepted gentlemen's agreement band plans
- C. Before transmitting, first listen on the frequency to be used to avoid interfering with an ongoing communication
- D. All of these choices

G2B12

24. What is a considerate way to avoid harmful interference when using phone?
- A. Ask if the frequency is in use, and say your call sign
  - B. Call MAYDAY to make sure that the frequency is clear
  - C. Call CQ for two minutes and see if anyone responds
  - D. Turn on your amplifier, then go ahead and transmit

G2B13

25. What is a considerate way to avoid harmful interference when using Morse code or CW?
- A. Send the letter "V" 12 times and then listen for a response
  - B. Call CQ for two minutes and see if anyone responds
  - C. Send "QRL? de" followed by your call sign and listen for a response
  - D. Turn on your amplifier, then go ahead and transmit

### **Manual Pages 4 to 8**

G2C01

26. What means may an amateur station in distress use to attract attention, make known its condition and location, and obtain assistance?
- A. Only Morse code signals sent on internationally recognized emergency channels
  - B. Any means of radiocommunication, but only on internationally recognized emergency channels
  - C. Any means of radiocommunication
  - D. Only those means of radiocommunication for which the station is licensed

G2C02

27. During a disaster in the US, when may an amateur station make transmissions necessary to meet essential communication needs and assist relief operations?
- A. When normal communication systems are overloaded, damaged or disrupted
  - B. Only when the local RACES net is activated
  - C. Never; only official emergency stations may transmit in a disaster
  - D. When normal communication systems are working but are not convenient

G2C03

28. If a disaster disrupts normal communications in your area, what may the FCC do?
- A. Declare a temporary state of communication emergency
  - B. Temporarily seize your equipment for use in disaster communications
  - C. Order all stations across the country to stop transmitting at once
  - D. Nothing until the President declares the area a disaster area

G2C04

29. If a disaster disrupts normal communications in an area what would the FCC

include in any notice of a temporary state of communication emergency?

- A. Any additional test questions needed for the licensing of amateur emergency communications workers
- B. A list of organizations authorized to temporarily seize your equipment for disaster communications
- C. Any special conditions requiring the use of non-commercial power systems
- D. Any special conditions and special rules to be observed by stations during the emergency

G2C05

30. During an emergency, what power output limitations must be observed by a station in distress?

- A. 200 watts PEP
- B. 1500 watts PEP
- C. 1000 watts PEP during daylight hours, reduced to 200 watts PEP during the night
- D. There are no limitations during an emergency

G2C06

31. During a disaster in the US, what frequencies may be used to obtain assistance?

- A. Only frequencies in the 80-meter band
- B. Only frequencies in the 40-meter band
- C. Any frequency
- D. Any United Nations approved frequency

G2C07

32. If you are communicating with another amateur station and hear a station in distress break in, what is the first thing you should do?

- A. Continue your communication because you were on frequency first
- B. Acknowledge the station in distress and determine its location and what assistance may be needed
- C. Change to a different frequency so the station in distress may have a clear channel to call for assistance
- D. Immediately cease all transmissions because stations in distress have emergency rights to the frequency

G2C08

33. Why do stations in the Radio Amateur Civil Emergency Service (RACES) participate in training tests and drills?

- A. To provide orderly and efficient operations for the civil defense organization they serve in the event of an emergency
- B. To ensure that members attend monthly on-the-air meetings of the civil defense organization they serve
- C. To ensure that RACES members are able to conduct tests and drills
- D. To acquaint members of RACES with other members they may meet in an emergency

G2C09

34. When are you prohibited from helping a station in distress?

- A. When that station is not transmitting on amateur frequencies
- B. When the station in distress offers no call sign
- C. You are not ever prohibited from helping any station in distress
- D. When the station is not another amateur station

G2C10

35. When FCC declares a temporary state of communication emergency, what must you do?

- A. Stay off the air until 30 days after FCC lifts the emergency notice
- B. Abide by the limitations or conditions set forth in the FCC notice
- C. Only communicate with stations within 2 miles of your location
- D. Nothing; wait until the President declares a formal emergency before taking further action

G2C11

36. During a disaster in the US, which of the following emission modes must be used to obtain assistance?

- A. Only SSB
- B. Only SSB and CW
- C. Any mode
- D. Only CW

G2C12

37. What information should anyone who sends a distress transmission give to stations who answer?

- A. The ITU region and grid square locator of the emergency
- B. The location and nature of the distress
- C. The time that the emergency occurred and the names of the persons involved
- D. The agencies to notify and the name of the emergency coordinator

G2C13

38. What frequency should be used to send a distress call?

- A. Whatever frequency has the best chance of communicating the distress message
- B. 3873 kHz at night or 7285 kHz during the day
- C. Only frequencies that are within your operating privileges
- D. Only frequencies used by police, fire or emergency medical services

## **Manual Pages 8 and 9**

G2D01

39. What is the Amateur Auxiliary to the FCC's Compliance and Information Bureau?

- A. Amateur volunteers who are formally enlisted to monitor the airwaves for rules violations
- B. Amateur volunteers who conduct amateur licensing examinations
- C. Amateur volunteers who conduct frequency coordination for amateur VHF repeaters
- D. Amateur volunteers who use their station equipment to help civil defense

organizations in times of emergency

G2D02

40. What are the objectives of the Amateur Auxiliary to the FCC's Compliance and Information Bureau?

- A. To conduct efficient and orderly amateur licensing examinations
- B. To encourage amateur self-regulation and compliance with the rules
- C. To coordinate repeaters for efficient and orderly spectrum usage
- D. To provide emergency and public safety communications

G2D03

41. Why are direction-finding "Fox Hunts" important to the Amateur Auxiliary?

- A. Fox Hunts compel amateurs to upgrade their licenses
- B. Fox Hunts provide an opportunity to practice direction-finding skills
- C. Someone always receives an FCC Notice of Apparent Liability (NAL) when a Fox Hunt is concluded
- D. Fox Hunts allow amateurs to work together with Environmental Protection Agencies

### **Manual Pages 9 and 10**

G2D04

42. What is an azimuthal projection map?

- A. A map projection centered on the North Pole
- B. A map projection centered on a particular location, used to determine the shortest path between points on the surface of the earth
- C. A map that shows the angle at which an amateur satellite crosses the equator
- D. A map that shows the number of degrees longitude that an amateur satellite appears to move westward at the equator with each orbit

G2D05

43. What is the most useful type of map to use when orienting a directional HF antenna toward a distant station?

- A. Azimuthal projection
- B. Mercator
- C. Polar projection
- D. Topographical

G2D06

44. A directional antenna pointed in the long-path direction to another station is generally oriented how many degrees from its short-path heading?

- A. 45 degrees
- B. 90 degrees
- C. 180 degrees
- D. 270 degrees

G2D11

45. Which HF antenna would best be used to focus your signal to minimize

interference?

- A. A bidirectional antenna
- B. A horizontal antenna positioned broadside to the desired direction
- C. A unidirectional antenna
- D. An omnidirectional antenna at low power

### **Manual Pages 10 and 11**

G2D07 [97.103b]

46. If a visiting amateur transmits from your station on 14.325 MHz, which of these is NOT true?

- A. You must first give permission for the visiting amateur to use your station
- B. You must keep in your station log the call sign of the visiting amateur together with the time and date of transmissions
- C. The FCC may think that you were the station's control operator, unless your station records show otherwise
- D. You both are equally responsible for the proper operation of the station

G2D08

47. Why should I keep a log if the FCC doesn't require it?

- A. To help with your reply, if FCC requests information on who was control operator of your station for a given date and time
- B. Logs provide information (callsigns, dates & times of contacts) used for many operating contests and awards
- C. Logs are necessary to accurately verify contacts made weeks, months or years earlier, especially when completing QSL cards
- D. All of these choices

G2D09

48. What information is normally contained in a station log?

- A. Date and time of contact
- B. Band and/or frequency of the contact
- C. Call sign of station contacted and the RST signal report given
- D. All of these choices

G2D10

49. Which of the following is a good reason to keep a log of your station's activities?

- A. It is required by the FCC's rules
- B. It is a tradition from the earliest days of amateur radio
- C. It can aid you in resolving interference complaints
- D. It can be a source of great enjoyment when reviewed in later years

### **Manual pages 11 to 13**

G2E02

50. Which of the following statements is true of VOX operation?

- A. The received signal is more natural sounding

- B. This mode allows "Hands Free" operation
- C. Frequency spectrum is conserved
- D. The duty cycle of the transmitter is reduced

G2E03

51. Which of the following user adjustable controls are usually associated with VOX circuitry?

- A. Anti-VOX
- B. VOX Delay
- C. VOX Sensitivity
- D. All of these choices are correct

G2E04

52. What is the purpose of the VOX sensitivity control?

- A. To set the timing of transmitter activation
- B. To set the audio frequency range at which the transmitter activates
- C. To set the audio level at which the transmitter activates
- D. None of these choices is correct

G2E10

53. What is the circuit called that causes a transmitter to automatically transmit when an operator speaks into its microphone?

- A. VXO
- B. VOX
- C. VCO
- D. VFO

G2E11

54. What is the best reason to use a headset with an attached microphone and VOX control when using a mobile station?

- A. For safer, hands-free operation
- B. It allows you to make quicker transmissions
- C. To eliminate ambient noise from your transmissions
- D. To reduce outside distractions while operating

G2E12

55. What function does an anti-VOX circuit perform?

- A. It prevents received audio from keying the transmitter
- B. It prevents background noise from keying the transmitter
- C. It prevents unauthorized persons from keying the transmitter
- D. It prevents activation of the transmitter during CW operation

G2F01

56. Which of the following describes full break-in telegraphy (QSK)?

- A. Breaking stations send the Morse code prosign BK
- B. Automatic keyers are used to send Morse code instead of hand keys
- C. An operator must activate a manual send/receive switch before and after every transmission
- D. Incoming signals are received between transmitted key pulses

G2F08

57. What prosign is sent using CW to indicate the end of a formal message?

- A. SK - I acknowledge
- B. BK - break
- C. AR - end of transmission
- D. KN - called station only, go ahead

**Manual pages 13 to 16**

G1F05 [97.305c, 97.307f3]

58. What is the maximum symbol rate permitted for RTTY emissions transmitted on frequency bands below 10 meters?

- A. 56 kilobauds
- B. 19.6 kilobauds
- C. 1200 bauds
- D. 300 bauds

G1F06 [97.307f5]

59. What is the maximum symbol rate permitted for packet emission transmissions on the 2-meter band?

- A. 300 bauds
- B. 1200 bauds
- C. 19.6 kilobauds
- D. 56 kilobauds

G1F07 [97.307f4]

60. What is the maximum symbol rate permitted for RTTY or data emission transmissions on the 10-meter band?

- A. 56 kilobauds
- B. 19.6 kilobauds
- C. 1200 bauds
- D. 300 bauds

G1F08 [97.307f5]

61. What is the maximum symbol rate permitted for RTTY or data emission transmissions on the 6- and 2-meter bands?

- A. 56 kilobauds
- B. 19.6 kilobauds
- C. 1200 bauds
- D. 300 bauds

G1F09 [97.307f5]

62. What is the maximum authorized bandwidth for RTTY, data or multiplexed emissions using an unspecified digital code transmitted on the 6- and 2-meter bands?

- A. 20 kHz
- B. 50 kHz
- C. The total bandwidth shall not exceed that of a single-sideband phone

emission

D. The total bandwidth shall not exceed 10 times that of a CW emission

G2F03

63. In what segment of the 20-meter band do most RTTY transmissions take place?

A. 14.000 - 14.050 MHz

B. 14.070 - 14.095 MHz

C. 14.150 - 14.225 MHz

D. 14.275 - 14.350 MHz

G2F04

64. Which of the following is NOT correct?

A. ASCII is a 7-bit code, with start, stop and parity bits

B. The benefit of using AMTOR is its error detection and correction properties

C. Baudot is a 5-bit code, with additional start and stop bits

D. The two major AMTOR operating modes are SELCAL and LISTEN

G2F05

65. What is the most common frequency shift for RTTY emissions in the amateur HF bands?

A. 85 Hz

B. 170 Hz

C. 425 Hz

D. 850 Hz

G2F06

66. Why are the string of letters R and Y (sent as "RYRYRYRY...") occasionally used at the beginning of RTTY or other data transmissions?

A. This allows time to 'tune in' a station prior to the actual message being sent

B. To keep these commonly-used keys functional

C. These are the important mark and space keys

D. To make sure the transmitter is functional before sending a message

G2F07

67. What does the abbreviation "RTTY" stand for?

A. "Returning to you", meaning "your turn to transmit"

B. Radioteletype

C. A general call to all digital stations

D. Morse code practice over the air

G2F09

68. What character sequence is sent using RTTY or other data modes to indicate the end of a formal message?

A. CZCZ

B. KKKK

C. XXXXX

D. NNNN

G2F10

69. How many data bits are sent in a single PSK31 character?

- A. The number varies
- B. 5
- C. 7
- D. 8

G2F11

70. What part of a data packet contains the routing and handling information?

- A. Directory
- B. Preamble
- C. Header
- D. Footer