

Indian River County FL ARES®

ARRL Introduction to Emergency Communication Course

Topic 1-1 When does a communication emergency exist?

- a) Whenever the public is at risk.
- b) When there is an earthquake in your area and the public is inconvenienced.
- c) When a critical communication system fails and the public is inconvenienced.
- d) When a critical communication system fails and the public is put at risk.

Topic 1-2 Which of the following is it most important for an emcomm group to do at the end of an emergency communication operation?

- a) Review the effectiveness of its response.
- b) Take photos of the activity.
- c) Call the local newspaper to schedule interviews.
- d) Review the activities of the first responders.

Topic 1-3 Which of the following is NOT a responsibility of emergency communicators?

- a) Making demands on the agency being supported.
- b) Having radios, frequencies and basic radio skills.
- c) Being licensed and preauthorized for national and international communications.
- d) Possessing emergency communications skills.

Topic 1-4 Which of the following describes the function of a Rapid Response Team (RRT)?

- a) To Handle large-scale emergencies over an extended period.
- b) To deploy a quick response in a very short time.
- c) To establish and operate a storm watch prior to any emergency.
- d) To review of the effectiveness of an emergency communications group.

Topic 1-5 In an emergency situation – when a served agency asks you to forward an urgent message – which of the following methods would you NOT employ?

- a) CB radio
- b) Family radio
- c) Informal, conversational grapevine.
- d) The served agency's own radio system.

Topic 2-1 Which of the following best describes your main job as an emergency communicator?

- a) Dispatcher. Organizing the flow of vehicles, personnel, and supplies.
- b) Weather spotter.
- c) Radio operator, using Amateur or served agency radio systems.
- d) Resources coordinator, organizing the assignments of disaster relief volunteers.

Topic 2-2 Which of the following best describes the role of a modern emergency coordinator?

- a) You are strictly limited to communication tasks.
- b) You may be asked to serve any function that includes communication.
- c) You do anything the served agency asks.
- d) You transmit and receive messages.

Topic 2-3 If you are asked by a served agency to perform a task that falls outside FCC rules, which of the following is a proper response?

- a) Document the request, and then do what is asked.
- b) Document the request, but refuse to do it.
- c) Leave immediately.
- d) Discuss the situation with the served agency, and develop an alternative solution.

Topic 2-4 An MOU is:

- a) A legal contract between you and the served agency
- b) Volunteer information and make yourself helpful to them
- c) A document outlining what you can expect from each other
- d) Ignore them and hope they will go away.

Topic 2-5 Which of the following will most affect your relationship with a served agency?

- a) Your radio and electronic equipment.
- b) Your knowledge of FCC regulations.
- c) Your attitude.
- d) Your radio skills.

Topic 3-1 What mode should be used to send a list of casualties?

- a) A VHF repeater system.
- b) A secure mode.
- c) PACKET RADIO.
- d) An HF net.

Topic 3-2 What types of messages are good to send by fax?

- a) High precision, lengthy and complex messages.
- b) Simple low-precision, and short messages.
- c) Messages to many destinations simultaneously.
- d) High detail color photographs.

Topic 3-3 What types of messages should be handled by a packet bulletin board?

- a) Time sensitive messages of immediate priority.
- b) Low precision messages.
- c) Non-time-critical messages and reference material, when the sender and receiver cannot be available simultaneously.
- d) Messages to be “broadcast” to numerous stations.

Topic 3-4 What is the pitfall that is common to telephone, cellular phone and trunked radio systems?

- a) They do not take advantage of the benefits of Amateur Radio.
- b) They are all difficult to use.
- c) They are seldom available at shelters and public safety agencies.
- d) They all require the use of a complex central switching system that is subject to failure in a disaster situation.

Topic 3-5 Which of the following is an example of an efficient communication?

- a) A ham communicating a lengthy list of needed medical supplies over a voice net.
- b) A lengthy exchange between two stations on a primary voice channel being shared by a numbers of users.
- c) Typing out a digital message that “the delivery van containing coffee has arrived at this location” on a high-precision packet link.
- d) Sending a shelter list on the office fax machine.

Topic 4-1 Which of the following best describes the ARES organizational structure?

- a) ARRL – District-Section-County
- b) ARRL – Section-District
- c) ARRL – County-Region
- d) ARRL – State-Region-Section

Topic 4-2 Which of the following best describes the ARES chain of command within a section?

- a) Section Manager–District Emergency Coordinator–Emergency Coordinator – Assistant Emergency Coordinator – Section Emergency Coordinator
- b) Section Emergency Coordinator– Section Manager—District Emergency Coordinator–Emergency Coordinator–Assistant Emergency Coordinator
- c) Section Manager–Section Emergency Coordinator–District Emergency Coordinator–Emergency Coordinator– Assistant Emergency Coordinator
- d) Section Manager–Section Emergency Coordinator–Emergency Coordinator – District Emergency Coordinator– Assistant Emergency Coordinator

Topic 4-3 Which of the following best describes a Level 2 RRT?

- a) Is a first responder in any emergency.
- b) Operates a few strategically placed stations within the first hour of an emergency.
- c) Responds within a few hours and is prepared with longer term (72 hour) jump kits.
- d) Always affiliated with SATERN.

Topic 4-4 Which of the following best describes an ARES Mutual Assistance Team (ARESMAT)?

- a) Is generally available for tasks lasting less than one day.
- b) Is always from the local area.
- c) An ARES team who are willing and able to travel to another area.
- d) Is called out only when the President suspends regular Amateur operations.

Topic 4-5 Which of the following is true about REACT?

- a) REACT is a part of the ARRL.
- b) REACT does not have an MOU with ARRL.
- c) REACT's mission is more restricted than that of ARES.
- d) REACT's resources include CB, Amateur Radio, GMRS, FRS, and MURS.

Topic 5a-1 When emcomm team members are called upon to operate on Public Safety Radio Systems, which of the following may they not do?

- a) Use special "10 codes."
- b) Use the served agency's standard operating procedure.
- c) Use the phonetic alphabet employed by the served agency.
- d) Engage in casual conversations.

Topic 5a-2 Which of the following modes/devices would not be appropriate for you to use to transmit a message for a served agency?

- a) Email on a computer with Internet connections
- b) Fax machine
- c) Land line telephone
- d) ALL of these are appropriate and usable if needed

Topic 5a-3 Which of the following best describes the newer Emergency Medical Radio Services?

- a) Ten UHF duplex frequencies and seven VHF simplex channels.
- b) Ten simplex VHF frequencies with pulsed tone encoders for each hospital.
- c) Seven UHF duplex frequencies and ten VHF simplex channels.
- d) The MedStar system with channels Med 1 through Med 10.

Topic 5a-4 Which of the following statements is true about trunked systems?

- a) Trunked systems are able to operate without the use of computer controllers.
- b) The number of frequencies on a trunked system is always a multiple of 10.
- c) Amateur radio does not currently use this type of system.
- d) Most trunked systems have ample reserve capacity.

Topic 5a-5 When emcomm teams work with a served agency, a number of assumptions are made. Which of the following assumptions are true?

- a) Amateur Radio operators can operate any communications equipment they encounter.
- b) There are NO significant differences between Amateur Radio operating procedures and the procedures used by the served agencies.
- c) Served agencies must provide training if Amateur Radio operators are to be used effectively.
- d) All phonetic alphabets are essentially the same and are thus interchangeable.

Topic 5b-1 Which of the following is not a good practice when using FRS / GMRS radios?

- a) Using tactical callsigns
- b) Operating away from sources of loud noise
- c) Waiting for a frequency to be cleared by other users before transmitting
- d) Speaking very loudly directly into the microphone.

Topic 5b-2 Which group might an Amateur contact about community-preparedness efforts?

- a) Neighborhood Watch
- b) Homeowners association
- c) CERT team.
- d) All the above.

Topic 5b-3 CERT is:

- a) A national certification program for ICS
- b) A volunteer program of trained people operating in teams under ICS protocols
- c) A program mandated by FEMA for all parts of the country
- d) An auxiliary of local Fire Departments.

Topic 6-1 In emergency communications, which of the following is NOT true?

- a) Listening is only about 10% of communication.
- b) Any message can have huge and unintended consequences.
- c) A message that is never delivered can yield disastrous results.
- d) Listening also means avoiding unnecessary communications.

Topic 6-2 Which of the following procedures is best for using a microphone?

- a) Hold the microphone just off the tip of your nose.
- b) Talk across, rather than into, your microphone.
- c) Shout into the microphone to insure that you are heard at the receiving end.
- d) Whenever possible, use voice operated transmissions (VOX).

Topic 6-3 In emergency communications, which of the following is true?

- a) Never use "10 codes" on Amateur Radio.
- b) Use "Q signals" on served-agency radio systems.
- c) Under NO circumstances use Q" signals on a CW net.
- d) Use technical jargon when you feel that it is appropriate.

Topic 6-4 Which of the following is always true of a tactical net?

- a) Personal call signs are never used.
- b) Personal call signs are always preferred.
- c) Personal call signs are required at ten-minute intervals or at the end of your last transmission.
- d) Personal call signs are required at ten-minute intervals during a conversation and at the end of your last transmission.

Topic 6-5 Which of the following is the most efficient way to end an exchange on a tactical net

- a) Say "Over".
- b) Say "Roger".
- c) Give your FCC call sign.
- d) Ask Net Control if there are any further messages for you.

Topic 7a-1 Which of the following requires no NCS to control net operations?

- a) An Open Net
- b) A Directed Net
- c) An NTS Net
- d) A Health and Welfare Net.

Topic 7a-2 Which of the following is true of Directed Nets?

- a) There is minimal direction from a Net Control Station
- b) There is no clearly assigned mission
- c) They serve only as Liaison Nets between several simultaneous nets during large operations
- d) They are used when the volume of traffic is too great to be handled on a first-come, first-served basis.

Topic 7a-3 Who is responsible for ensuring a smooth flow of traffic within and between nets?

- a) The Official Observer.
- b) The Net Manager.
- c) The Liaison Station.
- d) The NTS Emergency Coordinator.

Topic 7a-4 Which type of net would handle non-formal communications for a served agency?

- a) Health and Welfare Net.
- b) Tactical Net.
- c) Resource Net.
- d) Traffic Net.

Topic 7a-5 Which of the following statements concerning nets is true?

- a) Resource Nets are used to assign operators as they become available.
- b) Health and Welfare Nets operate only on HF bands.
- c) NTS Traffic Nets handle both formal and informal long distance messages.
- d) Tactical Nets handle only formatted, written messages.

Topic 7b-1 Which of the following best describes a net?

- a) A group of stations that purposely frequent the airwaves.
- b) A group of stations who gather on one frequency with a purpose.
- c) A group of stations who occasionally meet on various frequencies.
- d) A group of stations who propose to meet at a particular time.

Topic 7b-2 What is a major difference between an “open net” and a “directed net”?

- a) The presence or absence of full control by a Net Control Station.
- b) The presence or absence of formal traffic.
- c) The type of radio traffic on the net.
- d) The approval or sanction of net operations by the FCC.

Topic 7b-3 Which of the following is true of a “tactical net”?

- a) The net is used to acquire volunteers and handle assignments.
- b) The net is used for the coordination of activities associated with future emergencies.
- c) The net may be directed or open, but will usually have a Net Control Station.
- d) The net handles only formal traffic.

Topic 7b-4 When should you check into an emergency net?

- a) When you want to comment on something that someone else has said.
- b) When you are tired of listening.
- c) When you first join the net and when you have messages, questions or relevant information.
- d) When you first join the net and when you would like to send greetings to one of the participating stations.

Topic 7b-5 What should you do if someone in authority asks you to move your station?

- a) Do so immediately without argument and report to the NCS as soon as possible.
- b) Call the NCS for advice before moving.
- c) Tell the person in authority how difficult it is for you to comply.
- d) Demand a written order before complying

Topic 7c-1 Which of the following best describes the responsibilities of the NCS in an emcomm operation?

- a) The NCS is responsible for all aspects of the emcomm operation.
- b) The NCS is responsible for station check in.
- c) The NCS is responsible for all aspects of the net's operation.
- d) The NCS is responsible for writing the net script.

Topic 7c-2 As acting "fill in" NCS, which of the following practices would you *avoid*?

- a) Try to run an existing net much as the previous NCS did.
- b) Handle messages in order of precedence: Emergency-Priority-Welfare.
- c) Keep notes as you go along: do not let your log fall behind.
- d) Ask stations to pass messages on the main net frequency whenever possible

Topic 7c-3 Which of the following is true of a liaison station?

- a) The liaison station mainly relays bulletins authorized by the served agency to all stations on the net.
- b) A liaison station passes messages only on a pre-set schedule.
- c) A liaison station handles only one-way traffic.
- d) A liaison station passes messages between two nets

Topic 7c-4 Packet modes include which of the following groups?

- a) FM packet, HF packet and PACTOR.
- b) HF packet, PACTOR and PSK31.
- c) PACTOR, PSK31 and RTTY.
- d) PSK31, RTTY and PACTOR

Topic 7c-5 You are the NCS of a net involved in an emcomm operation and you notice that some other station is intentionally interfering with your net. Which of the following represents your best course of action?

- a) Shut down the net and go home.
- b) Address the interfering station directly and inform them of the error of their ways.
- c) Move the net to an alternate frequency.
- d) Contact the EOC and continue to operate

Topic 7d-1 What is a maximum amount of time a radio amateur can participate in a government sponsored drill on behalf of their employer?

- a) One hour.
- b) 72 hours twice a year.
- c) There is no limit.
- d) Never

Topic 7d-2 What is the maximum amount of time a radio amateur can participate in a non- government sponsored drill on behalf of their employer?

- a) One hour a week.
- b) Never.
- c) There is no limit.
- d) No limit if it is for a hospital

Topic 7d-3 Your employer wants you to design and operate an Amateur Radio system between office buildings so his business can still function even if the phones and intranet are down. He says that for him, “No phones is an emergency.” Should you do it?

- a) Yes
- b) No

Topic 8-1 Which is the primary purpose of a “standby” NCS in an informal net?

- a) To make certain that the informal sharing of information flows smoothly.
- b) To encourage others to join in the informal conversations.
- c) To upgrade the net to formal status if it becomes necessary.
- d) To acquire monthly service points.

Topic 8-2 The NCS operator is responsible for which of the following?

- a) Being in charge of the overall communication effort.
- b) Being in charge of the net during his shift.
- c) Being in charge of net operations beyond his net and shift.
- d) Being in charge of frequencies, schedules and recruiting.

Topic 8-3 Which is least desirable time to train new operators?

- a) During an emergency.
- b) During a tabletop exercise.
- c) During a public service event.
- d) During a regularly scheduled training event.

Topic 8-4 Which best describes the primary mission of the NCS operator?

- a) To train net operators.
- b) To understand the Incident Command System (ICS).
- c) To help the net move as much traffic as possible in the least amount of time, accurately and effectively.
- d) To tune out all distractions and to focus on the job at hand in an often noisy and chaotic environment

Topic 8-5 Which of the following does not represent “the right stuff” to become a good NCS operator?

- a) The ability to handle mental and physical stress for long periods.
- b) The ability to write legibly.
- c) The desire to be seen as important in a response despite lack of training.
- d) Above average operating skills.

Topic 9-1 Which of the following statements is true?

- a) The NCS should ask for check-ins immediately before reading the opening script.
- b) The NCS should ask for check-ins just before reading the closing script.
- c) The NCS should ask for check-ins immediately after reading the opening script and periodically thereafter.
- d) The NCS should ask for check-ins every ten minutes during the operation of the net.

Topic 9-2 In which order should messages be handled during an emergency?

- a) Priority, Emergency, Health & Welfare, Routine.
- b) Emergency, Priority, Health & Welfare, Routine.
- c) Emergency, Health & Welfare, Priority, Routine.
- d) Health & Welfare, Emergency, Routine, Priority.

Topic 9-3 Which of the following should the NCS operator not expect of trained net members?

- a) To ask the NCS operator for permission to call another station.
- b) To answer promptly when called by the NCS operator.
- c) To follow established net protocols.
- d) To rely exclusively on FCC call signs during net operations.

Topic 9-4 Which of the following are appropriate to use in an emergency phone net?

- a) Plain English and 10-Codes.
- b) Plain English and prowords.
- c) Q-signals and prowords.
- d) Q-Signals and 10-Codes

Topic 9-5 Which is the best way to enlist the cooperation of the net?

- a) Immediately criticize net operators who make a mistake so that other operators will learn from the error.
- b) Issue an order demanding the cooperation of all net operators.
- c) Explain what you are doing in a calm and straightforward manner.
- d) Immediately expel operators from the net who do not follow net protocol.

Topic 10-1 What are the requirements and qualifications of the ARRL Net Manager position?

- a) There are no specific requirements or qualifications for the position.
- b) Amateur Radio license; full ARRL membership; and any appropriate local or Section qualifications.
- c) An Amateur Extra Class license; and the approval of ARRL Headquarters.
- d) The approval of the emergency management agency holding jurisdiction in the area.

Topic 10-2 Which statement best describes the Section Net Manager's job?

- a) Coordinate public information in the Section.
- b) Provide technical information to members of ARES and/or NTS.
- c) Appoint the local Emergency Coordinators.
- d) Coordinate and supervise traffic handling and net activities in the Section.

Topic 10-3 Which factor does NOT affect the number of Net Managers appointed in each Section?

- a) The Section's geographical size.
- b) The number of nets operating in the Section.
- c) Other factors having to do with the way the Section is organized.
- d) The ARRL Emergency Preparedness Manager.

Topic 10-4 Who appoints the NTS Net Manager?

- a) Section Manager.
- b) Division Director.
- c) ARRL Headquarters staff.
- d) Local EC.

Topic 10-5 To whom does the Section Net Manager report?

- a) Division Director is responsible for supervising all Field Organization activity.
- b) ARRL HQ staff is responsible for supervising all Field Organization activity.
- c) Section NMs work under the STM and/or SEC, guided by a coordinated Section traffic or ARES communications plan.
- d) Emergency Management personnel.

Topic 11-1 Which of the following statements about the National Traffic System is *true*?

- a) It is highly reliant upon CW.
- b) It was designed within the last 25 years.
- c) Each net within the System is an independent, “stand alone” entity.
- d) It is a unique system for efficiently handling messages.

Topic 11-2 The Area Nets include which of the following?

- a) The Eastern, the Central, the Canadian, and the Pacific.
- b) The Eastern, the Central, the Mountain, and the Pacific.
- c) The Central, the Mountain, and the Canadian.
- d) The Eastern, the Central, and the Pacific.

Topic 11-3 Which is the purpose of a “hotline circuit”?

- a) To move a modest amount of routine traffic between two locations in small town.
- b) To move a moderate amount of traffic between two served agencies across the country.
- c) To move a high volume of traffic between two locations during a disaster.
- d) To move a high volume of holiday traffic across the country

Topic 11-4 Which of the following statements is *true*?

- a) NTS was designed to compete with independent traffic networks.
- b) NTS generally encompasses five different levels of operation.
- c) Section nets exclusively handle traffic between Local and Regional nets.
- d) Regional Nets exclusively handle traffic among Sections within their Region.

Topic 12-1 What is the purpose of a specialized net?

- a) To work with a government agency or EOC.
- b) To determine what resources are available for service.
- c) To serve and be customized for a specific served agency.
- d) For passing of health and welfare traffic only.

Topic 12-2 Which statement best describes a Specialized Net?

- a) A net geared to a specific agency and its unique requirements.
- b) A net for finding out which resources are available for service.
- c) Communications with ARES personnel only.
- d) Passing of Health & Welfare traffic only.

Topic 12-3 How should a NCS plan prior to a Specialized Net?

- a) Work with the SEC, DEC and EC.
- b) Meet and plan with the served agency itself.
- c) Work with a liaison specially assigned to the actual agency.
- d) All of the above.

Topic 12-4 To whom does the NCS of a specialized net report?

- a) The EC or liaison directly involved with the agency for which the net was created, and also to the leadership of that agency.
- b) The SM or SEC.
- c) Only to the top leadership of the agency for which the net was created.
- d) The ARES team leaders

Topic 13-1 When is the Hurricane Watch Net normally activated?

- a) Every morning at 1000 UTC during hurricane season only.
- b) When a hurricane is within 300 miles of making landfall.
- c) When a tropical storm approaches a populated land mass.
- d) When a tropical wave develops west of Africa.

Topic 13-2 Who should check in to the Hurricane Watch Net an hour before a hurricane makes landfall?

- a) All amateurs should check in.
- b) Amateurs with weather stations only.
- c) Only those stations on the net roster.
- d) Only amateurs in the affected area, or amateurs with important information that would be needed by the net or the National Hurricane Center.

Topic 13-3 Does a station have to be located in a hurricane area to be a member of the Hurricane Watch Net?

- a) Yes, the net is made up solely of stations in hurricane areas.
- b) There is no membership in the Hurricane Watch Net. Anybody can check in at any time.
- c) No. The net has a need for stations in Canada and on the west coast that can control the net as propagation shifts to the north and to the west.
- d) No. The net has a need for stations in the Midwest and west coast that can control the net as propagation shifts to the west.

Topic 13-4 Which answer best describes the four step method to describe severe weather?

- a) Who, What, When, Why.
- b) What, Where, When, Details.
- c) What, Where, Why, General Comments.
- d) What, When, Why, Where.

Topic 13-5 SKYWARN® participants would generally not report which of the following?

- a) Fog.
- b) High winds.
- c) Sleet.
- d) Hail size

Topic 14-1 The preamble to an ARRL radiogram message contains a block called "Precedence." Which of the following represents the correct precedence for an EMERGENCY message?

- a) "URGENT."
- b) "U."
- c) "EMERGENCY."
- d) "E."

Topic 14-2 The preamble to an ARRL Radiogram message contains a block called "Handling Instructions." What is the meaning of the handling instruction "HXE"?

- a) Delivering station to get and send reply from addressee.
- b) Report date and time of delivery to the originating station.
- c) Cancel message if not delivered within (X) hours of filing time.
- d) Collect telephone delivery authorized.

Topic 14-3 ARRL Radiogram messages contain a block called "Time Filed." Which of the following is true of entries in that block?

- a) This field is always completed.
- b) Time entries are always Universal Coordinated Time.
- c) During emergencies "local time" is used.
- d) During emergencies "local time" along with the local date is used.

Topic 14-4 ARRL Radiogram messages contain a block called "The Check." Which of the following is true of entries in that block?

- a) The check contains a count of the words in the entire message.
- b) The check contains a count of the words in the preamble and the text of the message.
- c) The check contains a count of the words in the preamble, address and text of the message.
- d) The check contains a count of the words in the text of the message.

Topic 14-5 Which of the following statements is true of the punctuation within an ARRL Radiogram?

- a) Punctuation is always helpful; it should be used whenever possible.
- b) Punctuation is rarely helpful; it should never be used.
- c) Punctuation should be used only when it is essential to the meaning of the message.
- d) The comma and apostrophe are the most common punctuation signs used in NTS messages.

Topic 15-1 As part of an emcomm group handling message traffic in an emergency, you are asked to forward a message that contains typographical errors. Which of the following is your best course of action?

- a) Delay sending the message.
- b) Forward the message exactly as received.
- c) Return the message to the originating station.
- d) On your own, correct the error in the message and forward it.

Topic 15-2 As part of an EMCOMM net handling message traffic in an emergency, you are asked to forward a message in a non-standard format. Which of the following is your best course of action?

- a) Delay sending the message until you have conferred with the originator.
- b) Return the message to the originator.
- c) On your own, rewrite the message in proper format and forward it.
- d) Forward the message exactly as received.

Topic 15-3 You have been asked to send an ARRL Radiogram dealing with birthday greetings. Which of the following is the correct way to write the message text?

- a) ARRL 46
- b) ARL 46
- c) ARL FORTY SIX
- d) ARRL FORTY SIX

Topic 15-4 When delivering an ARRL numbered radiogram, which should be done?

- a) Deliver the message exactly as received.
- b) Deliver the message exactly as received but add your own written explanation.
- c) Decode the message into plain language before delivery.
- d) Deliver the message exactly as received but add your own verbal explanation.

Topic 15-5 During an emergency, service messages should be sent for which of the following categories of message?

- a) Emergency, Priority, Welfare and Routine.
- b) Emergency, Priority and Welfare.
- c) Priority and Welfare.
- d) Emergency and Priority.

Topic 16-1 What do the letters “ICS” stand for?

- a) International Correspondence School
- b) Incident Command System
- c) Institutional Control System
- d) Internal Control Sequence

Topic 16-2 What is ICS?

- a) A management tool for coordinating the resources of several agencies within a single command structure.
- b) A fixed and unchangeable system for managing an incident.
- c) A means of subverting the normal command structure within an agency or department.
- d) A managed system restricted to use by government agencies and departments.

Topic 16-3 The ICS has two interrelated parts. What are they?

- a) A mission statement and management objectives.
- b) Management by objectives and organizational structure.
- c) Organizational structure and a financial plan.
- d) A financial plan and an operational plan.

Topic 16-4 Aside from the Incident Commander, there are four major operating sections within an ICS. What are they?

- a) Planning, Operations, Logistics and Public Relations.
- b) Personnel, Planning, Operations and Finance/Administration.
- c) Planning, Operations, Logistics and Finance/Administration.
- d) Payroll, Finance/Administration, Logistics and Operation.

Topic 16-5 What is an emcomm group’s relationship to the ICS structure during an incident?

- a) The emcomm group always serves within the Logistics area.
- b) The emcomm group may or may not be a formal part of the ICS structure.
- c) The emcomm group always serves the Task Force leader directly.
- d) The emcomm group always serves the Incident Commander Directly.

Topic 17-1 Of the following, which is the best reason for preparing a jump kit in advance?

- a) You will not leave something important at home or waste valuable time.
- b) You are spared the added expense of shopping for something after an emergency arises.
- c) You can be fully rested on the day of the emergency.
- d) You can test the batteries on your hand-held VHF before leaving home.

Topic 17-2 Which of the following would you omit from a jump kit prepared for a 12-hour deployment?

- a) Hand-held VHF or dual-band radio.
- b) Spare rechargeable batteries for the hand-held radio.
- c) High energy snacks.
- d) Camp cot and tent.

Topic 17-3 Among the following, which are the most important items of information to include in your jump kit?

- a) ID cards and other authorizations.
- b) Field cookbook.
- c) Automobile repair manual.
- d) Instruction book for your chain saw.

Topic 17-4 Among the following, which is the least important item of personal gear to include in your jump kit?

- a) Frequency lists and net schedules.
- b) Contact information for other members of your group, EC, DEC and SEC.
- c) Key phone numbers, email, and internet addresses.
- d) A deck of playing cards.

Topic 17-5 If you are assigned in advance to a particular location for emcomm operations, what is the least important thing to know in advance?

- a) The escape routes from the facility itself.
- b) The regular business hours maintained at the facility.
- c) The availability of radio equipment at the facility.
- d) The location of your operating position and the planned location of the antenna.

Topic 18-1 In considering power sources for HF radios, which of the following is true?

- a) DC to AC inverters can be used to power HF radios.
- b) Standard automobile batteries last longer than deep cycle batteries.
- c) AC powered HF radios are suitable for all emcomm use.
- d) Whenever possible, use deep cycle batteries to power HF radios.

Topic 18-2 In considering antennas for VHF/UHF radios, which is the best rule?

- a) High transmitter power is more important than having a good antenna.
- b) Transmitter power and antenna selection are equally important.
- c) A good antenna is more important than high transmitter power.
- d) If properly used, “rubber ducky” antennas can compensate for low transmitter power.

Topic 18-3 Beam antennas have many advantages. Which of the following is the best reason for selecting a beam antenna?

- a) They are inexpensive and easy to transport.
- b) They are easy to erect and very stable in storm conditions.
- c) They are compact and easy to store.
- d) They maximize desired signals and reduce interference from other stations.

Topic 18-4 Which of the following statements about ARES deployment clothing is true?

- a) Three years (until 2013) are being given to “wear out” and replace older clothing.
- b) The standards increase recognition and acceptance of ARES units.
- c) The standards apply only to clothing worn on actual ARES deployments.
- d) All of the above.

Topic 18-5 In comparing the 30 amp Anderson power pole connector with the 10 amp Molex connector, which of the following is true?

- a) The Molex is better for high power applications.
- b) The Molex is better for heavy duty cycles.
- c) The Anderson is capable of being plugged and unplugged a greater number of times without deterioration.
- d) The Anderson handles only low power applications.

Topic 19-1 When the telephone tree is activated, what should be done when a caller cannot reach one of their assigned contacts?

- a) Call all those assigned to the person who cannot be reached.
- b) Call the liaison to report the difficulty.
- c) Ignore that person and go on to the next assigned contact.
- d) Stop calling at that point and “break” the tree.

Topic 19-2 What is an “emcomm activation Liaison” for a served agency?

- a) A phone answering service employed by the agency.
- b) An automatic paging service employed by the agency.
- c) An agency employee who arrives early to turn on equipment
- d) A member of an emcomm group who is alerted first by the agency.

Topic 19-3 Regarding emcomm alerting systems, which of the following is true?

- a) All systems are equally useful.
- b) As an alerting system, commercial paging is clearly superior to all others.
- c) As an alerting system, the telephone tree is clearly superior to all others.
- d) It is best not to rely exclusively upon any single alerting system.

Topic 19-4 Which if the following is true of e-mail as an alerting system?

- a) With e-mail, emcomm members can be reached immediately anywhere they happen to be.
- b) With e-mail, High-Speed Internet connections guarantee that the messages will be reviewed quickly.
- c) E-mail is best used as a backup alerting system.
- d) With e-mail, the CTCSS tone assures that all members will be quickly alerted.

Topic 19-5 Which of the following statements is true about NCS?

- a) The NCS is so important that it should never be assigned on a temporary basis.
- b) The NCS is so important that temporary assignment as NCS should be limited to only one member of the group.
- c) The NCS is so important that several members should be trained to take on the duties until the assigned NCS checks in.
- d) The first member to sign on to a net is always the NCS for the duration of the incident.

Topic 20-1 Suppose that you have been activated during an emergency and have been told to report to an agency that is different from your usual assignment. Which of the following is your best course of action upon arriving at the agency?

- a) Take charge and set up a communication center right away.
- b) Check around the site and find the best place to set up a communication center.
- c) Ask the receptionist about the best location for setting up a communication center.
- d) Introduce yourself to the person in charge as the emergency communicator assigned to that location.

Topic 20-2 You are to brief the staff of a served agency about privacy on Amateur Radio. Which of the following is the most accurate statement you can make?

- a) Speaking quietly into a microphone assures that no one will overhear private information.
- b) It is permissible to use code words to assure privacy on the air.
- c) There is no privacy with Amateur Radio voice communications.
- d) There are no methods by which the security of any message can be assured on Amateur Radio.

Topic 20-3 Suppose that you have been assigned to a site and the emergency ends. If the site manager asks you to close your station, what is the best course of action?

- a) Do as the site manager tells you and close down your station immediately.
- b) Ignore the site manager and await further instructions from higher authority.
- c) Check in with the emcomm manager or NCS before closing down.
- d) Have your emcomm manager or NCS speak directly with the site manager before you take any action.

Topic 20-4 In preparing to leave a site after an emcomm event, which of the following actions is NOT appropriate?

- a) Clean up any mess, discard trash, and move furniture back to its original position.
- b) Unpack all desk items that you have placed in boxes and put them back in their original locations.
- c) Thank all of those who worked with you.
- d) Repair any relationships that may have been strained during the event.

Topic 20-5 A debriefing should be scheduled after each emcomm event. What is the primary purpose of this debriefing?

- a) It provides an occasion to swap “war stories.”
- b) It serves as a legitimate forum for complaints.
- c) It serves to improve future emcomm activities.
- d) It provides an occasion for resolving interpersonal issues.

Topic 21-1 Which of the following will NOT limit VHF simplex range?

- a) Terrain.
- b) Output Power.
- c) Antenna Gain.
- d) Digipeaters.

Topic 21-2 Which of the following actions will NOT improve simplex receptions?

- a) Increase the antenna height.
- b) Switch to a non-directional antenna.
- c) Increase transmitter output power at both stations.
- d) Move the antenna away from obstructions.

Topic 21-3 Which of the following is true about a simplex repeater?

- a) The FCC rules do not permit unattended operation of simplex repeaters.
- b) They work best in the “cross band repeater” mode.
- c) They require the use of two radios.
- d) Is the same as a “human repeater.”

Topic 21-4 Which of the following is a good means of dealing with stress during an emcomm event?

- a) Take every comment personally.
- b) Pay no attention to other team members.
- c) To reduce personal stress, insist on working more than your own shirt.
- d) Prioritize your actions – the most important and time sensitive ones come first.

Topic 22-1 Which of the following statements concerning water purification is FALSE?

- a) Boiling water for a full 5 minutes will kill most harmful bacteria.
- b) Boiling water to purify it can leave it with a flat taste.
- c) Filters may or may not remove harmful bacteria.
- d) Purification tablets will remove bacteria and particulate matter (dirt).

Topic 22-2 Which of the following is true about using chlorine to purify water?

- a) It is best to use 8 tablespoons of chlorine bleach per gallon of water.
- b) Adding the proper amount of chlorine bleach to water will improve the taste.
- c) After adding bleach, water must sit for 3 hours before drinking.
- d) It is best to use 1/8 teaspoon of plain chlorine bleach per gallon of water.

Topic 22-3 Which of the following is true about the personal gear you bring to a long-term incident?

- a) Include several pairs of warm cotton socks.
- b) Lightweight summer clothing is all you will ever need.
- c) Keep spare eyeglasses or safety glasses/goggles in a hard-shell felt-lined storage case.
- d) As a volunteer communicator, you will need to bring specialized protective clothing.

Topic 22-4 Many Disaster assignments are in unsafe places. Which of the following is true about such locations?

- a) Always plan an escape route from buildings and hazardous areas.
- b) Always plan more than one escape route from buildings and hazardous areas.
- c) The only dangers that you need be concerned with in any location are fire, flood, and falling debris.
- d) Dams, bridges and buildings can generally be thought of as “safe zones.”

Topic 22-5 Which of the following statements about safety and survival is true?

- a) The mission takes priority over everything else.
- b) A person requires at least four gallons of water per day just for drinking.
- c) If caffeine keeps you awake, stop drinking caffeinated beverages at least ten minutes before going to bed.
- d) Your personal safety and well-being are a higher priority than the mission.

Topic 23-1 A Joint Information Center is established to:

- a) Formulate a unified voice and message.
- b) Dispel rumors.
- c) Provide a central location for media questions.
- d) All of the above.

Topic 23-2 As an ARES PIO you will be expected to:

- a) Get coffee for the Lead PIO.
- b) Provide relevant information to media regarding Amateur Radio involvement.
- c) Give timely updates regarding the overall emergency effort and participants.
- d) Provide a victim list including names and conditions.

Topic 23-3 You are involved in an ARES deployment but not as a PIO. A reporter shows up at your location and starts to ask you questions. What should you do?

- a) If possible, refer them to the JIC, designated Lead PIO or ARES PIO.
- b) If possible, refer them to the EC and DEC.
- c) Refer them to the Unified Commander.
- d) Be friendly, tell them what you are doing and how the operation is going.

Topic 23-4 There's a flood in progress. A reporter for the local TV station comes to your location and asks you to get on the radio and talk to someone at the levees to find out if they think the sandbags will hold. What things need to be considered in this request?

- a) Are other means of communication still available?
- b) Amateurs can ask questions of other amateurs – not just “someone”.
- c) The question is speculating about things not specific to the Amateur Radio operation.
- d) All of the above.

Topic 24 -1 Which can you NOT use to identify your transmissions on Citizens' Band radio?

- a) Your Amateur call.
- b) Your “handle”.
- c) A self-assigned identifier.
- d) A tactical callsign.

Topic 24 -2 Which is the best course of action for summoning help via CB?

- a) Use channel 1, since the lowest frequency has the longest ground-wave signal.
- b) Call at regular intervals on channels 9 and 19 for a response.
- c) Call only on channel 9, since it is designated for assistance and emergencies.
- d) Say “Break – Break” or “MAYDAY” on any channel.

Topic 24 -3 Which is NOT an advantage of using Family Radio Service (FRS) systems?

- a) They are readily available at low cost.
- b) Operation on FRS radios is simple and requires little training.
- c) There is no requirement for licensing to use FRS.
- d) Low transmitter power.

Topic 24 -4 Who may currently license a GMRS system with the FCC?

- a) A privately owned business, for routine communications.
- b) An individual, for family and personal use.
- c) A charitable institution, for benevolent purposes.
- d) A local repeater club.

Topic 24 -5 Which is NOT *true* of the MURS?

- a) A station license is required.
- b) Power output is limited to 2 watts.
- c) Radios operate in the VHF band.
- d) Data emissions are permitted.

Topic 25 -1 What is the first thing that happens after a disaster has occurred?

- a) The Federal Emergency Management Agency arrives on the scene.
- b) The Red Cross and Salvation Army arrive with food and bedding for victims.
- c) Massive increase in the volume of traffic on public-safety radio channels.
- d) The press provides up to date and accurate information to the public.

Topic 25 -2 Which of the following statements is NOT *true* of interagency communications?

- a) Many agencies use incompatible radio systems.
- b) Many agencies are reluctant to use each other's radio system.
- c) Agencies all use the same radio systems and frequencies.
- d) Amateur Radio can be used to link agencies.

Topic 25 -3 In the first 72 hours of a disaster situation, where is the greatest concentration of relief effort to be found?

- a) Urban areas.
- b) Suburban areas.
- c) Rural areas.
- d) Outside the affected area.

Topic 25 -4 Which organization handles health and welfare messages on behalf of the victims?

- a) Department of Homeland Security.
- b) Hurricane Watch Net.
- c) National Weather Service.
- d) American Red Cross.

Topic 25 -5 What is the usual situation in a disaster after the initial 72 hours?

- a) The disaster area remains in virtual isolation.
- b) The disaster is over and everybody can go home.
- c) A few victims still need assistance.
- d) Communication systems are back to normal.

Topic 26 -1 Which of the following BEST describes where you should be located when in the vicinity of a HazMat incident?

- a) Far away enough to ensure your safety.
- b) Downhill and downwind.
- c) Close enough to read the numbers on any placards with your naked eyes.
- d) Alongside emergency responders wearing exposure suits.

Topic 26 -2 Which Federal agency is responsible for warning the public about hazardous materials containers and shippers?

- a) Federal Emergency Management Agency.
- b) Federal Response Plan.
- c) National Communications System.
- d) Department of Transportation.

Topic 26 -3 Before transmitting in the area of a HazMat incident what should you always do?

- a) First identify the agents by reading the placard or container labels.
- b) Be far enough away so that no vapors or fumes are present.
- c) Wait to report the incident until police or fire officials have arrived.
- d) Take action to stop or contain any agents that might be leaking.

Topic 26 -4 On the sides of transporting vehicles how are different classes of hazardous materials identified?

- a) Placards.
- b) Four-digit numbers.
- c) Warning labels and/or icons.
- d) All of the above answers are correct.

Topic 26 -5 Gasoline tankers filling the neighborhood gas station's underground tanks are identified with a placard bearing which of the following?

- a) 1203.
- b) 1993.
- c) 2003.
- d) 2706.

Topic 27 -1 When is it permissible to utilize channel FM 22?

- a) At anytime after making an initial call on FM 16.
- b) Whenever channel FM 9 and FM 16 are busy.
- c) Only when directed by the Coast Guard.
- d) At no time, it is for Coast Guard use only.

Topic 27 -2 What should you do if you hear an unanswered marine distress call?

- a) Contact the nearest Coast Guard facility and advise them of the call.
- b) Answer the caller immediately and ask what the emergency is.
- c) Get in your own boat and attempt a rescue.
- d) Listen for a response. If none, respond and gather all information possible and then contact the nearest Coast Guard facility.

Topic 27 -3 When must you identify yourself on VHF-FM marine Radio?

- a) Only on the initial call.
- b) Only on the initial call and the final call.
- c) Only on the original call and then every ten minutes.
- d) On all transmissions.

Topic 27 -4 Which vessels operate MW/HF SSB radios?

- a) Any vessel that wants to.
- b) Only sea-going vessels that operate outside the range of VHF-FM radios.
- c) Only those vessels that operate offshore and have a VHF-FM marine radio.
- d) Only those vessels that have an Amateur Radio operator aboard.

Topic 27 -5 Which channel(s) may be used for calling another vessel?

- a) FM 83
- b) FM 9
- c) FM 16
- d) Both FM 9 and FM 16.

Topic 28 -1 Which of the following best describes your purpose as an emergency communicator?

- a) To operate the radio.
- b) To coordinate communications for the EOC.
- c) To provide accurate and rapid transfer of information from one place to another.
- d) To provide internal communication support to one (and only one) responding agency.

Topic 28 -2 Which of the following best describes tactical messages?

- a) They are high precision and time critical.
- b) They are low precision and time critical.
- c) They are point-to-point and NOT time critical.
- d) They are point-to-multipoint and low precision.

Topic 28 -3 Long lists and detailed messages are best handled by which of the following modes?

- a) Voice or CW.
- b) Fax or digital.
- c) CW OR DIGITAL.
- d) Phone or fax.

Topic 28 -4 During an emergency, you are using voice transmissions to pass messages. Which of the following “guidelines” should govern your action if you were asked to transmit the names and addresses of victims?

- a) Transmit the information exactly as presented to you.
- b) Use a pre-established code to transmit the information.
- c) If absolute privacy is required, do not transmit the information by Amateur Radio.
- d) Switch to a digital mode and be assured of complete privacy.

Topic 28 -5 Which of the following PSK31 modes has an error correction feature?

- a) BPSK
- b) QPSK
- c) RPSK
- d) SPSK

Topic 29 -1 Which of the following was NOT recommended as a means of practicing actual emcomm skills?

- a) Regularly scheduled nets.
- b) On-air training sessions.
- c) Discussion groups.
- d) Public service events.

Topic 29 -2 What is the purpose of ARRL’s *Public Service and Emergency Communications Management for Radio Amateurs* course?

- a) To review the skills and knowledge presented in this course.
- b) To provide training for prospective Emergency Operation Center Managers.
- c) To prepare individuals for the jobs of NCS and Net Manager.
- d) To prepare individuals for management level jobs such as EC, DEC or SEC or other leadership or training roles.