

EQUIPMENT SYSTEMS

What equipment is associated with the land or terrestrial systems?

- a EPIRB.
- b VHF-MF-HF.
- c Inmarsat-C.
- d GPS.

What equipment is associated with the space systems?

- a VHF-MF-HF.
- b Inmarsat-C.
- c Navtex.
- d SART.

What equipment is used in or near the survival craft?

- a Navtex.
- b Fathometer.
- c Cospas-Sarsat.
- d EPIRB.

What equipment is programmed to initiate transmission of distress alerts and calls to individual stations?

- a Navtex.
- b GPS.
- c DSC controller.
- d Scanning Watch Receiver.

What system provides accurate vessel position information to the GMDSS equipment?

- a GPS.
- b Cospas-Sarsat.
- c EPIRB.
- d Inmarsat-A.

What is the primary equipment for receiving MSI.

- a SART.
- b EPIRB.
- c Navtex.
- d Inmarsat-A.

SEA AREAS

Which of the following region lies outside Sea Areas A1, A2, and A3?

- a Sea Areas only apply to Inmarsat footprint areas.
- b Sea Area A3-I (Inmarsat coverage) and Sea Area A3-S (HF SITOR coverage).
- c There are no additional Sea Areas.
- d Sea Area A4.

What sea area is defined as being within range of a shore-based MF station that provides for continuous DSC alerting?

- a Sea area A2.
- b Coastal waters.
- c Sea area A3.
- d Sea area A1.

What is defined as an area, excluding sea areas A1 and A2, within the coverage of an Inmarsat geostationary satellite in which continuous alerting is available?

- a Ocean Area Regions AOR-E, AOR-W, POR or IOR.
- b Sea Area A4.
- c Sea Area A3.
- d Coastal and Inland Waters.

FUNCTIONAL REQUIREMENTS

Which communications functions must all vessels be capable of performing under GMDSS as defined by the International Maritime Organization?

- a Radio Direction Finding.
- b Distress alerting to and from vessels, search and rescue coordination, on-scene communications, signals for locating, maritime safety information, general and bridge-to-bridge communications.
- c Communications in each of the operational ocean areas.
- d All communications possible within the International Safety-Net service.

GMDSS-equipped ships will be required to perform which of the following communications functions?

- a Distress alerting and maritime safety information.
- b Search and Rescue coordination and on-scene communications.
- c Bridge-to-bridge and general radio communications.
- d All of these.

What equipment can be used to receive Maritime Safety Information?

- a Navtex.
- b EGC receiver.
- c HF NBDP.
- d All of the above.

EQUIPMENT CARRIAGE REQUIREMENTS

Vessels operating in which sea area(s) are required to carry either Inmarsat or HF equipment or a combination thereof under GMDSS?

- a All sea areas.
- b A3
- c A4
- d A1

If operating within Ocean Area A1, and outside of NAVTEX coverage, a GMDSS-equipped vessel must carry?

- a An Inmarsat-A terminal.
- b A GPS receiver.
- c Equipment capable of maintaining a continuous DSC watch on 2187.5 kHz.
- d Equipment capable of reception of maritime safety information by the Inmarsat enhanced group call system, or HF NBDP.

RADIO SPECTRUM

What is the frequency range for Medium Frequency?

- a 30-300 kHz
- b 300-3,000 kHz
- c 1,000-10,000 kHz
- d 10-30 MHz

What is the frequency range for High Frequency?

- a 3-30 MHz
- b 300-3,000 kHz
- c 30-300 MHz
- d 10-30 MHz

What is the frequency range for Very High Frequency?

- a 3-30 MHz
- b 300-3,000 kHz
- c 30-300 MHz
- d 10-30 MHz

What is the frequency range for Ultra High Frequency?

- a 3-30 MHz
- b 300-3,000 MHz
- c 30-300 MHz
- d 10-30 MHz

What is the frequency range for Super High Frequency?

- a 30-300 GHz
- b 300-3,000 MHz
- c 30-300 MHz
- d 3-30 GHz

What is the primary frequency range for long distance skywave communications?

- a 3-30 MHz
- b 300-3,000 kHz
- c 30-300 MHz
- d 10-30 MHz

FREQUENCY BANDS

Which system is most likely to be affected by atmospheric disturbances?

- a MF/HF radiotelephony.
- b VHF DSC.
- c Inmarsat.
- d SafetyNET.

Which system is least likely to be affected by atmospheric disturbances?

- a NAVTEX.
- b Inmarsat.
- c MF NBDP.
- d HF NBDP.

Which of the following frequency bands would most likely provide reliable communications between two stations that are 100 miles (160 km) apart?

- a The Low Frequency (LF) band.
- b The Medium Frequency (MF) band.
- c The High Frequency (HF) band.
- d The Very High Frequency (VHF) band.

MODULATION-DEMODULATION, AM & FM

What statement best describes modulation?

- a Imposing intelligence onto a radio carrier signal.
- b Changing mark-space to 1 and 0.
- c Adjusting the frequency to the optimum band for long distance communications.
- d Converting the carrier from a low frequency to a higher frequency.

What statement best describes demodulation?

- a Detuning the receiver to remove interfering signals.
- b Removing atmospheric noise from the signal.
- c Removing the information signal from the carrier.
- d Separating the telex signals from the voice signals.

Which statement best describes amplitude modulation?

- a The character data from the terminal is changed to audio tones.
- b The frequency is varied in synchronization with the modulating signal.
- c The information signal changes the amplitude but does not change the carrier frequency.
- d The amplitude of the carrier is changed but there is still only a single frequency being transmitted.

What is the emission designation for MF-HF voice signals?

- a F1B
- b J3E
- c J2B
- d F3E

Which statement best describes frequency modulation?

- a Both the amplitude and frequency are changed by the modulating signal.
- b The frequency is changed by the information signal and the amplitude remains unchanged.
- c Frequency modulation is subject to interference by atmospheric noise.
- d High level mixing of the final amplifier signal and the information signal.

CARRIER, SIDEBANDS

Which of the following statements describes the carrier?

- a The carrier consists of at least 3 separate but closely spaced frequencies.
- b The carrier is a Radio Frequency (RF) signal that is modified to carry intelligence.
- c The carrier is used to modulate the information signal.
- d There are always sidebands on either side of the carrier.

How many sidebands are present in a standard A.M. signal?

- a One
- b Four
- c Two
- d Three

How many sidebands are present in the J3E mode?

- a Two sidebands and a carrier.
- b One upper sideband.
- c One lower sideband.
- d Two carriers and one sideband.

REQUIRED DOCUMENTS AND PUBLICATIONS

Which of the following references should the GMDSS Radio Operator consult for information on the proper operation of equipment?

- a ITU List of Equipment Operations.
- b The manufacturer's operator manuals.
- c 47 CFR Part 80.
- d Information is available through SafetyNET channels.

EQUIPMENT TESTING

At sea, all required equipment (other than Survival Craft Equipment) must be proven operational by?

- a Daily testing.
- b By either a) or c).
- c Operational use of the equipment.
- d Testing at least every 48 hours.

The best way to test the Inmarsat-C terminal is?

- a Send a message to a shore terminal and wait for confirmation.
- b Compose and send a brief message to your own Inmarsat-C terminal.
- c Send a message to another ship terminal.
- d If the send light flashes, proper operation has been confirmed.

WATCHKEEPING

A vessel certified for service in Sea Area A3 is required to maintain a watch on?

- a VHF Channel 70.
- b MF Frequency 2187.5.
- c HF on 8414.5 kHz and one other HF DSC frequency.
- d All of these.

A vessel certified for service in Sea Area A2 is required to maintain watch on?

- a 2174.5 kHz
- b 2187.5 kHz
- c 2182.0 kHz
- d 2738.0 kHz

What are the mandatory DSC watchkeeping bands/channels?

- a VHF Ch-70, 2 MHz MF DSC, 6 MHz DSC and 1 other HF DSC.
- b 2 MHz MF DSC, 8 MHz DSC, VHF Ch-16 and 1 other HF DSC.
- c 8 MHz HF DSC, 1 other HF DSC, 2 MHz MF DSC and VHF Ch-70.
- d None of the above.

INMARSAT MOBILE NUMBERS FOR C TERMINALS

You receive a telex with the senders I.D. of 433863491. What type of terminal sent this message to your vessel?

- a Inmarsat-C.
- b Land telex terminal.
- c Inmarsat-B.
- d Inmarsat-A.

Which of the following would indicate an Inmarsat-C terminal?

- a 003668202
- b 436682433
- c 325468263
- d 1500270

Which of the following would indicate an Inmarsat-C terminal?

- a 150036
- b 366294824
- c 430346275
- d 1502690

Which of the following would indicate an Inmarsat-C terminal?

- a 003662517
- b 436682011
- c 325468325
- d 1500241

Which of the following would indicate an Inmarsat-C terminal?

- a A 9 digit number beginning with the MID.
- b A 7 digit number.
- c A 9 digit number always starting with 3.
- d A 9 digit number always starting with 4.

DSC FORMAT, INFO SENT

VHF-DSC transmissions are encoded and transmitted in what emission mode?

- a H3E
- b F1B/J2B
- c A3E
- d None of the above.

Properly formatted DSC transmissions can request which of the following emissions for follow on communications?

- a J3E/H3E telex emissions.
- b F1B/J2B voice emissions.
- c J3E/H3E voice emissions.
- d None of the above.

DSC OPERATIONS

Which of the following statements concerning DSC equipment is true?

- a The GMDSS Radio Operator is responsible for properly selecting HF DSC guard channels.
- b All equipment must be type accepted.
- c The vessel's navigational position must be updated, either automatically or manually, no less often than every four (4) hours.
- d All of the above.

What is the action that a GMDSS Radio Operator should take when a DSC distress alert is received?

- a No action is necessary, as the DSC control unit will automatically switch to the NBDP follow-on communications frequency.
- b The Operator should immediately set continuous watch on the radiotelephone frequency that is associated with frequency band on which the distress alert was received.
- c The Operator should immediately set continuous watch on VHF channel 70.
- d The Operator should immediately set continuous watch on the NBDP frequency that is associated with frequency band on which the distress alert was received.

What does the DSC control unit do if the GMDSS Radio Operator fails to insert updated information when initiating a DSC distress alert?

- a It will abort the transmission and set off an audible alarm that must be manually reset.
- b It will initiate the DSC distress alert but, as no information will be transmitted, rescue personnel will not be able to identify the vessel, its position, or its situation.
- c It will initiate the DSC distress alert, and default information will automatically be transmitted.
- d It will initiate the DSC distress alert, but any station receiving it will have to establish contact with the distressed vessel to determine its identity, position, and situation.

A DSC Distress alert:

- a Must always be sent on VHF Ch-70.
- b Must always be sent on MF 2 MHz plus one other HF DSC frequency.
- c Will always be sent on one or more of the DSC distress frequencies.
- d Must always be sent on VHF Ch-70, then 2 MHz MF then 8 MHz HF.

In all cases, the transmit frequency of a MF/HF console DSC distress alert:

- a Will go out first on 2187.5 kHz.
- b Will go out on 8 MHz and 2 MHz and one other DSC distress frequency.
- c It depends upon operator DSC Call set up entries.
- d None of the above.

DSC relays of Distress Alerts by vessels:

- a Should be done for all Distress Alerts.
- b Should be transmitted to ships involved in Distress traffic.
- c Should be avoided, however after repeated alerts, should be relayed to a Coast Station nearest the distress incident.
- d Are the best means to provide for a relay of Distress communications.

DSC FREQUENCIES

Which of the following is not a DSC watch frequency?

- a 2187.5 kHz.
- b 6312 kHz.
- c 2182 kHz.
- d 12577 kHz.

How many total frequencies are available for DSC distress alerting?

- a One (1).
- b Two (2).
- c Five (5).
- d Seven (7).

Which of the following are the MF/HF DSC Distress watch frequencies

- a 2177.5, 4210.0, 6314.0, 8416.5 12579.0, 16806.5
- b 2182.0, 4125.0, 6215.0, 8291.0, 12290.0, 16420.0
- c 2187.5, 4207.5, 6312.0, 8414.5, 12577.0, 16804.5
- d 2174.5, 4177.5, 6268.0, 8376.5, 12520.0, 16695.0

SENDING A DISTRESS ALERT

What is usually the first step for a GMDSS Radio Operator to take when initiating a distress priority message via Inmarsat?

- a By dialing the correct code on the telephone remote unit.
- b By pressing a "Distress Button" or "Distress Hot Key(s)" on the equipment.
- c By contacting the CES operator and announcing a distress condition is in existence.
- d By contacting the CES operator using the radiotelephone distress procedure "Mayday"... etc.

If a GMDSS Radio Operator initiates a DSC distress transmission but does not insert a message, what happens?

- a The transmission is aborted and an alarm sounds to indicate this data must be provided by the operator.
- b The transmission is not initiated and "ERROR" is indicated on the display readout.
- c The transmission will be made with "default" information provided automatically.
- d The receiving station will poll the DSC unit of the vessel in distress to download the necessary information.

Repetition of a DSC Distress call is normally automatic if not acknowledged after a delay of:

- a 1 - 2 minutes.
- b 2- 5 minutes.
- c 3.5 - 4.5 minutes.
- d Not at all.

A MF/HF DSC Distress call:

- a Will send the minimal necessary information using the "Distress Button" or "Distress Hot Key"
- b Contains all the information normally of interest in on-scene Distress communications.
- c Will send a more detailed Distress format if time permits and operator data entries are correctly performed.
- d Both a) & c) are true.

Which statement regarding an MF/HF DSC Distress call is true:

- a Follow on communications should be presumed to take place on the telex frequency associated with the specific DSC frequency used.
- b Follow on communications should be presumed to take place on the voice frequency associated with the specific DSC frequency used.
- c An alternate emission and frequency may be specified for follow-up communications by the vessel originating the Distress Alert.
- d Both b) and c) are true.

FOLLOW-ON VOICE TRANSMISSION

You send a MF-DSC distress alert. What frequency do you use for the follow-on voice transmission?

- a 2760 kHz
- b 2187.5 kHz
- c 2182 kHz
- d 2174.5 kHz

You send a HF-DSC alert on 8414.5 kHz. What frequency do you use for the voice transmission?

- a 8376.5 kHz
- b 8291.0 kHz
- c 8401.5 kHz
- d 8201.0 kHz

What is the proper format for a distress follow on voice transmission? (3x is three times),

- a All Ships 3x this is Ship's Name/Call Sign 3x Mayday Position.
- b Mayday 3x this is Ship's Name/Call Sign 3x Distress category.
- c Both of the above.
- d None of the above.

What information should be included in a distress follow on voice transmission?

- a Ship's Name and Call Sign.
- b Ship's position.
- c Ship's MMSI number.
- d All of the above.

RESPONSE TO A DISTRESS ALERT

Which statement is true regarding the receipt and acknowledgement of distress alerts by ship stations and ship earth stations (SES)?

- a A ship or ship earth station that receives a distress alert must, as soon as possible, inform the Master or person responsible for the ship of the contents of the distress alert.
- b Ship stations in receipt of distress alert should not defer acknowledgement for a short interval, so that receipt may be acknowledged by the coast station.
- c Ship stations operating in areas where reliable communications with a coast station are not practicable, that receive a distress alert from a vessel in their vicinity, must either acknowledge receipt of and inform the Rescue Coordination Center or, if rec
- d Alerts concerning navigational hazards are second only to safety traffic.

What is the proper procedure to be followed upon receipt of a distress alert transmitted by use of Digital Selective Calling techniques?

- a Set watch on the DSC alerting frequency in the band of frequencies the alert was received.
- b Set watch on the radiotelephone distress and safety frequency associated with the distress and safety calling frequency on which the distress alert was received.
- c Set a continuous watch on VHF-FM Channel 13, 16 and DSC on Channel 70.
- d Ship stations equipped with narrow-band direct-printing equipment should respond to the distress alert as soon as practicable by this means.

What action should be taken on receipt of a distress alert?

- a Read the display screen and/or printout.
- b Silence the alarm.
- c Listen for any follow on voice/telex transmission on the appropriate frequency.
- d All of the above.

DISTRESS RELAYS

Your ship received a distress relay from a Coast Guard on DSC freq. 2187.5 kHz. You would acknowledge by radiotelephony on what frequency?

- a 4207.5 kHz
- b 8290.0 kHz
- c 2182.0 kHz
- d 6312.0 kHz

Under what conditions would you relay a DSC distress alert?

- a If the mobile unit in distress is incapable of further Distress Alert communications.
- b If no Coast Station/Mobile Unit acknowledgement is observed.
- c Answers a) and b) are both possible.
- d You should never relay such an alert -- the Coast Station & RCC will do that.

The relay of DSC Distress Alerts:

- a Has completely overburdened the GMDSS system with improperly formatted or inappropriately relayed DSC calls.
- b Was originally an intended function of the GMDSS system.
- c Is no longer the preferred method for passing Distress message traffic to an RCC or Coast Station.
- d All of the above

Transmission of a distress alert by a station not in itself in distress should occur:

- a When the mobile unit actually in distress is not itself in a position to transmit the distress alert.
- b When the Master or responsible person on the mobile unit not in distress so decides.
- c When the responsible person at the Coast Station determines further help is necessary.
- d In some cases, all of the preceding situations may justify a Distress Alert relay.

Relays of Distress Alerts using DSC may still be done. However, it is now recommended that such relays be done:

- a Only by Inmarsat-C telex with Distress Priority.
- b Only by Inmarsat-A voice or telex with Distress priority.
- c Preferably by MF/HF voice or telex directly to the RCC.
- d By any of the above methods which will effectively provide Distress communications to an RCC or Coast station without further activations of other Mobile Units' DSC controllers.

ACTION TO TAKE AFTER SENDING A FALSE DISTRESS ALERT

What action should you take after sending a false distress alert on MF?

- a Make a voice announcement to cancel the alert on 2187.5 kHz.
- b Make a voice announcement to cancel the alert on 2174.5 kHz.
- c Make a voice announcement to cancel the alert on 2182.0 kHz.
- d Send another DSC alert and follow on with voice on 2182.0 kHz.

What action should you take after sending a false distress alert on MF?

- a Send another DSC alert on 2187.5 kHz. and follow on with voice on 2187.5 kHz.
- b No action is necessary.
- c Send a DSC alert on all 7 DSC frequencies and follow on voice on 2174.5 kHz.
- d Make a voice announcement to cancel the alert on 2182.0 kHz.

What action should you take after sending a false distress alert on 8 MHz?

- a Make an "ALL SHIPS" call on all 5 H.F. telex channels canceling the alert.
- b Make an "ALL SHIPS" call on 8291.0 kHz canceling the alert.
- c Make a "MAYDAY" call on 8414.5 kHz canceling the alert.
- d Make an "URGENT" call on 8614.0 kHz canceling the alert.

What action should you take after sending a false distress alert on 12577.0 kHz?

- a No action is necessary.
- b Make an "ALL SHIPS" call on all 5 H.F. telex frequencies canceling the alert.
- c Make an "ALL SHIPS" call on the associated 12 MHz J3E frequency canceling the alert.
- d Send a message to the nearest RCC via Inmarsat canceling the alert.

What action should you take after sending a false distress alert on Inmarsat-C?

- a Press the "Distress Hot Keys" then press the "cancel" key.
- b Select "Transmit" menu and send a cancel message via the CES used for the distress alert.
- c Both of the above.
- d None of the above.

URGENT TRAFFIC

The Radiotelephone Urgency signal is:

- a Mayday
- b Pan Pan
- c Securite
- d Seelonce Feenee

Which of the following situations would normally use the Urgency priority?

- a Leaking oil from a minor tank fracture.
- b Treatment of crewmember breaking a leg in a cargo hold.
- c A fire in the generator flat/spaces.
- d Answers a) and b) are both possible.

The Urgent Priority should be used for:

- a Messages concerning the Safety of Life At Sea (SOLAS).
- b Messages detailing important navigational warnings.
- c Messages containing information concerning the safety of a mobile unit or person.
- d Messages concerning On-scene communications .

If the Watch Officer hears "PAN PAN" spoken 3 times it means:

- a A navigation or important meteorological warning should follow.
- b The station is preparing to transmit an URGENT message possibly concerning the safety of a mobile unit or person.
- c A Mobile unit is in need of immediate assistance.
- d None of the above.

SAFETY TRAFFIC

When the GMDSS Radio Operator on watch hears "SECURITE" spoken three times, he can expect to receive the following information:

- a Message concerning the Safety of navigation or important meteorological warnings.
- b Safety of vessel or person is in jeopardy.
- c Vessel in need of immediate assistance.
- d Coast Station Traffic list.

Which of the following situations would normally use the Voice designation "Securite"?

- a Messages concerning the Safety of Life At Sea (SOLAS).
- b Messages detailing important navigational warnings.
- c Messages containing information concerning the safety of a mobile unit or person.
- d Messages concerning On-scene communications.

Which of the following situations would normally use the Safety priority?

- a A crewmember over the side.
- b A serious medical situation involving a crewmember.
- c Both a) and b).
- d Scenarios concerning the Safety of navigation or important meteorological warnings.

The Radiotelephone Safety signal is:

- a "Securite" repeated 3 times.
- b "Safety Safety Safety".
- c "Pan Pan" repeated 3 times.
- d "Securite Securite" repeated 3 times.

Which of the following situations would normally use the Safety priority?

- a A crewmember over the side.
- b A serious medical situation involving a crewmember.
- c A scenario concerning an important navigational or meteorological warning.
- d All of the above.

FREQUENCIES

Which of the following frequencies and modes is allocated for distress alerting in GMDSS?

- a 406 MHz via EPIRB.
- b 1626.5-1645.5 MHz via Inmarsat.
- c Channel 70 DSC plus six (6) MF/HF DSC frequencies.
- d All of the above.

How many MF frequencies are available for DSC distress related calls?

- a One
- b Two
- c Four
- d Five

How many HF frequencies are available for DSC distress related calls?

- a One
- b Two
- c Four
- d Five

How many frequencies are available under GMDSS for DSC distress-related calls?

- a Two
- b Four
- c Five
- d Seven

OTHER PROCEDURES

Which of the following steps should be taken, if possible, when the vessel must be abandoned because of a distress situation?

- a Alert the Coast Guard by using the survival craft's portable INMARSAT unit.
- b Program the SART and EPIRB to transmit the vessel's location and situation.
- c Place the SART and EPIRB in the "on" position and secure them to the survival craft.
- d No additional steps are needed as the SART and EPIRB will both automatically float free and operate properly.

Which action is the most appropriate action for a GMDSS radio Operator to take in a distress situation where immediate help is needed, but the vessel is not sinking nor needs to be abandoned?

- a Switch off EPIRB and SART manually.
- b Transmit distress call by HF/MF/VHF DSC or Inmarsat.
- c Notify the RCC (Rescue Coordination Center) through VHF FM on channel 13.
- d Transmit distress call by activating the radiotelegraph automatic alarm signal.

DSC is used primarily to:

- a Receive weather warnings, navigational notices and other marine safety information.
- b Provide routine communications with the ship owner.
- c Transmit and receive distress, urgent and safety alerts to and from other ships and shore stations via radio.
- d Report ship's position to search-and-rescue authorities via satellite.

GMDSS vessels equipped for A2, A3 or A4 must maintain a continuous DSC watch on 2187.5 kHz.

- a Only in areas beyond Inmarsat coverage.
- b Only outside of areas covered by VHF-DSC.
- c When directed to do so by a cognizant rescue authority.
- d At all times when underway.

SART: ACTIVATION & SURVIVAL CRAFT OPERATIONS

What is the purpose of the SART's audible tone alarm?

- a It informs survivors that assistance may be nearby.
- b It informs survivors when the battery's charge condition has weakened.
- c It informs survivors when the SART switches to the "standby" mode.
- d It informs survivors that a nearby vessel is signaling on DSC.

What indication is given to the personnel of survival craft of the approach of another vessel?

- a The SART will provide a visual or audible indication of interrogation by a 3-cm radar.
- b The Satellite EPIRB will emit an audible signal.
- c The VHF portable radio will emit an audible alarm signal on 156.525 MHz.
- d The VHF portable will provide a visual indication.

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.

In a lifeboat or liferaft, what is a method of maximizing the effectiveness of an SART?

- a Place the SART into the sea as soon as possible to begin transmitting.
- b Hold or mount the unit as high as possible.
- c Extend the length of the transmitting antenna.
- d Replace the internal battery with the AC power adapter.

At what point does a SART begin transmitting?

- a It immediately begins radiating when placed in the "on" position.
- b It must be manually activated.
- c If it has been placed in the "on" position, it will respond when it has been interrogated by a 9-GHz radar signal.
- d If it has been placed in the "on" position, it will begin transmitting immediately upon detecting that it is in water.

What causes the SART to begin a transmission?

- a When activated manually, it begins radiating immediately.
- b It is either manually or water activated before radiating.
- c After being activated the SART responds to radar interrogation.
- d It begins radiating only when keyed by the operator.

SART: SAR PROCEDURES & RADAR PRESENTATION

How does the searching vessel's radar interrogate a survival craft SART?

- a Activate the IFF interrogation system.
- b The SART responds automatically when it detects the search craft or other vessels' X-Band radar signal.
- c Maintain watch on VHF-FM Ch-70 for the SART's unique identifier.
- d The SART responds automatically when it detects the search craft or other vessel's 3.5 GHz radar signal.

What does a SART signal sound or look like?

- a It transmits "SOS" and the vessel's name and position in slow speed Morse Code.
- b It will appear on a radar unit's PPI as a line of dots radiating outward with the innermost dot indicating the SART's position.
- c It will appear on a radar unit's PPI as a line of dots radiating outward with the outermost dot indicating the SART's position.
- d None of the above.

How can rescue personnel detect that a SART is transmitting in the immediate vicinity?

- a The SART's dots on the PPI will begin arcing and eventually become concentric circles.
- b The DSC unit will react to the SART's signal and respond with the two-tone auto alarm.
- c The SART can provide an approximate location to within a two nautical mile radius, per IMO standards.
- d The SART signal appears as a target which comes and goes; the effect of heavy swells on a SART.

What signal is detected as originating from an SART?

- a The Morse code distress series S-O-S repeated three times followed by DE and the vessel's call sign.
- b A line of dots on a radar screen outward from the SART's position along its line of bearing.
- c A line of dots on a radar screen inward from the SART's position to its own ship along its line of bearing.
- d None of these.

How can vessel personnel detect the operation of a SART in its vicinity?

- a A unique radar signal consisting of a 12 dots radiating outward from a SART's position along its line of bearing.
- b A unique two-tone "warbling" signal heard on VHF-FM Ch-70.
- c A unique two-tone alarm signal heard upon the automatic un-muting of the 2182 kHz radiotelephone automatic watch receiver.
- d The SART signal appears as a target which comes and goes; the effect of heavy swells on an SART.

How should the signal from a Search And Rescue Radar Transponder appear on a radar display?

- a A series of dashes.
- b A series of spirals all originating from the range and bearing of the SART.
- c A series of 12 equally spaced dots.
- d A series of twenty dashes.

SART: FREQUENCY & OPERATIONS

In which frequency band does a search and rescue transponder operate?

- a 3 GHz
- b 9 GHz
- c S-band
- d 406 MHz

Which of the following would most likely prevent a SART's signal from being detected?

- a Signal absorption by the ionosphere.
- b Heavy sea swells.
- c The rescue personnel were monitoring the 10-CM radar.
- d The rescue personnel were monitoring the 3-CM radar.

Which statement is NOT true regarding the SART?

- a Responds to interrogations by a vessel's X-Band radar.
- b Transmits on the 9 GHz band reserved for navigational radar.
- c Operates in conjunction with a vessel's S-Band radar.
- d Transmits a distinctive code for easy recognition.

Which statement is true regarding the SART required for GMDSS compliance?

- a This is a performance monitor attached to at least one X-band navigational radar system.
- b This is a 9 GHz transponder capable of being received by vessel's X-band navigational radar system.
- c This is a 9 GHz transponder capable of being received by another vessel's S-band navigational radar system.
- d This is a performance monitor attached to at least one X-band navigational radar system.

Which statement is NOT true regarding the SART?

- a Responds to interrogations by a vessel's X-Band radar.
- b This is a 6 GHz transponder capable of being received by a vessel's X-band navigational radar system.
- c This is a 9 GHz transponder capable of being received by another vessel's X-band navigational radar system.
- d Transmits a distinctive signal for easy recognition.

A SART's signal cannot be detected:

- a In poor visibility or at night.
- b In heavy seas.
- c By a search vessel's 10 cm Radar.
- d By a search vessel's 3 cm Radar.

SART: TESTING PROCEDURES & BATTERY PARAMETERS

Which of the following statements concerning testing and maintenance of SARTs is true?

- a An at-sea GMDSS maintainer is not able to test a SART as it is hermetically sealed.
- b Testing a SART should be performed only in controlled environment as a test signal may be misinterpreted as a genuine distress situation.
- c A SART's battery must be replaced within ninety (90) days after the expiration date imprinted on the unit.
- d All of the above.

Why is it important to limit the duration of testing a SART?

- a Excessive testing causes "burn in" on the vessel's radar PPI.
- b Testing a SART should be performed only in controlled environment as a test signal may be misinterpreted as a genuine distress situation.
- c To prevent overheating, a SART requires sufficient ventilation that is significantly reduced when the SART is being tested.
- d If another SART is testing at the same time, the two signals will cause damage to the unit that transmitted them.

What statement is true regarding tests and maintenance that could be provided for the SART?

- a To fully verify operation within manufacturer's specifications would require measuring equipment to generate 9 GHz signals; generally beyond the scope of on-board maintenance.
- b Extreme care should be exercise because testing of the SART may be received by other vessels and may be interpreted as a distress condition or provide interfere with other vessels' safe navigation.
- c Battery should be replaced with a new one before the manufacturer's expiration date shown on the SART.
- d All of these.

Why should functional testing of an SART be minimized?

- a Potential interference with safe navigation.
- b Minimize power consumption of the battery.
- c Possibility of misinterpretation by other vessels as a distress situation.
- d All of these.

Which is not a valid maintenance and testing function for an SART?

- a Operational test with several vessels to determine effective transmitting range.
- b Inspection of container for apparent damage.
- c Inspect battery expiration date and the lanyard condition.
- d Brief operational test utilizing own ship's radar.

The SART is required to have sufficient battery capacity to operate in the stand-by mode for what period of time?

- a Eight hours.
- b Three days.
- c Four days.
- d Forty-eight hours.

EPIRB: SYSTEM STRUCTURE & OPERATION

Which is a function of a satellite under COSPAS-SARSAT using satellite EPIRBs?

- a Vessel information recovered from the digital encoded message provided by the satellite EPIRB.
- b Doppler shift of EPIRB signal is measured.
- c Information received from EPIRBs are time-tagged and transmitted to any Local User Terminal in the satellite's view.
- d All of these.

Which of the following satellite systems is of particular importance to search and rescue missions under GMDSS?

- a COSPAS/SARSAT.
- b AMSAT.
- c NASA/Arienne.
- d COMSAT.

Which of the following statements concerning COSPAS-SARSAT is true?

- a EPIRBs are units that are used as alerting devices.
- b These are satellites in a low-earth polar orbit that detect EPIRB beacons on 406 MHz and relay the information to an earth-side Local User Terminal (LUT).
- c The Doppler frequency measurement concept is used to determine the EPIRB's location.
- d All of the above.

Which of the following statements concerning COSPAS-SARSAT is false?

- a EPIRBs are used primarily for distress alerting.
- b These satellites are looking specifically for EPIRB signals on 406 MHz.
- c These satellites use Doppler shift measurement to determine the location of the beacons.
- d After initiating a call request and selecting the CES, these satellites may be used for commercial messages.

Which of the following statements concerning satellite EPIRBs is true?

- a Once activated, these EPIRBs transmit a signal for use in identifying the vessel and for determining the position of the beacon.
- b The coded signal identifies the nature of the distress situation.
- c The coded signal only identifies the vessel's name and port of registry.
- d If the GMDSS Radio Operator does not program the EPIRB, it will transmit default information such as the follow-on communications frequency and mode.

EPIRB: ALERTING & FEATURES

What feature(s) may be found on certain satellite EPIRB units?

- a Strobe light.
- b Emergency transmission on 406 MHz.
- c Float-free release bracket.
- d All of these.

What feature is not found on 406 MHz satellite EPIRB units?

- a 121.5 MHz emergency homing transmitter.
- b Aural locator signal.
- c Emergency transmission on 406.025 MHz.
- d Float-free release bracket.

What statement is true regarding 406 MHz EPIRB transmissions?

- a Allows immediate voice communications with the RCC.
- b Coding permits the SAR authorities to know if manually or automatically activated.
- c Transmits a unique hexadecimal identification number.
- d Radio Operator programs his I.D. into the SART immediately prior to activation.

Which of the following is normally found on EPIRBs that are detected by satellites?

- a A strobe light.
- b A 5-watt 406-MHz beacon.
- c A bracket designed to allow the EPIRB to automatically float-free.
- d All of the above.

Which of the following EPIRBs is most likely to be used to transmit a distress alert signal?

- a S-Band EPIRBs.
- b 406 MHz EPIRBs.
- c Class A EPIRBs.
- d 121.5/243 MHz EPIRBs.

EPIRB: HOMING & LOCATING SIGNALS

Which piece of required GMDSS equipment is the primary source of transmitting locating signals?

- a Radio Direction Finder (RDF).
- b An EPIRB transmitting on 406 MHz.
- c Survival Craft Transceiver.
- d A SART transmitting on 406 MHz.

What may be used as a homing signal by the search and rescue vessels in the immediate vicinity of the ship in distress?

- a Flare gun.
- b Strobe Light.
- c A 121.5 MHz emergency transmitter in a satellite EPIRB.
- d 406 MHz signal from a satellite EPIRB.

What part of a satellite EPIRB may function as a visual aid to rescue vessels?

- a A 121.5 MHz emergency transmitter in a satellite EPIRB.
- b Strobe light.
- c 406 MHz signal from a satellite EPIRB.
- d Loud beeping tone emitted by the unit once activated.

What is an example of a locating signal?

- a SSB phone traffic.
- b Ship to shore transmissions.
- c Loran C.
- d A Float-Free EPIRB.

Which device provides the main means in the GMDSS for locating ships in distress, or their survival craft?

- a Radio Direction Finder.
- b Satellite EPIRBs.
- c MF/HF DSC.
- d VHF homing device.

SURVIVAL CRAFT TRANSCEIVER

With what other stations may portable survival craft transceivers communicate?

- a Communications is permitted between survival craft.
- b Communications is permitted between survival craft and ship.
- c Communications is permitted between survival craft and rescue unit.
- d All of the above.

Equipment for radiotelephony use in survival craft stations under GMDSS must have what capability?

- a Operation on Ch-16.
- b Operation on 457.525 MHz.
- c Operation on 121.5 MHz.
- d Any one of these.

Equipment for radiotelephony use in survival craft stations under GMDSS must have what characteristic(s)?

- a Operation on Ch-16.
- b Watertight.
- c Permanently-affixed antenna.
- d All of these.

SAR/MCC/RCC: SYSTEMS & PROCEDURES

Which action should the GMDSS radio operator take in a distress situation when embarking in survival craft?

- a Switch on EPIRB and SART immediately and leave on.
- b EPIRB and SART switched on manually prior to embarking; remain aboard vessel in distress.
- c Notify RCC (Rescue Coordination Center) through VHF DSC in portable equipment.
- d Communicate via Inmarsat-C from the survival craft.

Which is the key part of the search and rescue system under GMDSS?

- a COSPAS/SARSAT satellites.
- b AMSAT satellites.
- c NASA satellites.
- d US Space Agency satellites.

Which statement is true regarding the COSPAS-SARSAT system?

- a EPIRBs are used as satellite beacons aboard vessels as alerting devices.
- b Signals received by low altitude near-polar orbiting satellites are relayed to a ground receiving station, called a Local User Terminal.
- c Doppler shift is used to locate the beacons.
- d All of these.

Which statement is NOT true regarding the COSPAS-SARSAT system?

- a EPIRBs are used as satellite beacons aboard lifeboats as alerting devices.
- b Locates distress beacons transmitting on 406 MHz.
- c Doppler shift is used to locate the beacons.
- d May be used to transmit public correspondence.

Which statement is true regarding the COSPAS-SARSAT system and EPIRB operations?

- a The EPIRB's position is calculated by the system and passed to the RCC.
- b The EPIRB transmits a unique Hex I.D. and vessel position that is passed to the RCC.
- c The EPIRB transmits a unique Hex I.D. that is passed to the RCC.
- d Both a) and c) are true.

ON SCENE COMMUNICATIONS

Which of the following channels is designated as the VHF follow-on communications channel and is required in all portable survival craft equipment?

- a Ch-6
- b Ch-13
- c Ch-16
- d Ch-70

Which of the following frequencies have NOT been designated for “On-scene” communications in the Global Maritime Distress and Safety System?

- a VHF Ch-16.
- b MF radiotelephony on 2182 kHz.
- c NBDP on 2182.0 kHz.
- d None of these.

For “On-scene” communications, vessels in distress and SAR Aircraft should use?

- a VHF Ch-70, 4125 kHz J3E, 5680 kHz J3E
- b VHF Ch-16, 4125 kHz J3E, 3023 kHz J3E
- c VHF Ch-16, 4125 kHz F1B, 3023 kHz J3E
- d None of the above.

NAVTEX-1: OPERATIONS

How is mutual interference among NAVTEX stations avoided?

- a Stations are limited to daytime operation only.
- b Transmitter power is limited to that necessary for coverage of assigned area.
- c Transmissions by stations in each NAVAREA are arranged in a time-sharing basis.
- d Both b) and c).

When do NAVTEX broadcasts typically achieve maximum transmitting range?

- a Local noontime.
- b Middle of the night.
- c Sunset.
- d Post sunrise.

What should a GMDSS Radio Operator do if a NAVTEX warning message is received but it contains too many errors to be usable?

- a Do nothing. Vital NAVTEX messages will be repeated on the next scheduled broadcast.
- b Contact the NAVAREA coordinator and request a repeat broadcast.
- c The hurricane will be upon the vessel; they're in big trouble.
- d Listen to appropriate VHF weather channel for repeat warnings.

What does a NAVTEX receiver do when it runs out of paper?

- a The unit cannot operate, and all subsequent MSI broadcasts are missed until the paper is replaced.
- b It will give off either an audible and/or visual alarm.
- c The system will automatically change from receiving MSI by NAVTEX to receiving it by SafetyNET so that no messages will be lost.
- d All of the above.

Which of the following is the primary frequency that is used exclusively for NAVTEX broadcasts internationally?

- a 518 kHz
- b 2187.5 kHz
- c 4209.5 kHz
- d VHF channel 16 when the vessel is sailing in Sea Area A1, and 2187.5 kHz when in Sea Area A2.

What is the transmitting range of most NAVTEX stations?

- a Typically 50-100 nautical miles (90-180 km) from shore.
- b Typically upwards of 1000 nautical miles (1800 km) during the daytime.
- c It is limited to line-of-sight or about 30 nautical miles (54 km).
- d Typically 200-400 nautical miles (360-720 km).

NAVTEX-2: PROGRAMMING

How is a NAVTEX receiver programmed to reject certain messages?

- a The transmitting station's two-digit identification can be entered to de-select reception of its broadcasts.
- b By choosing a message category's single letter (A-Z) identifier and then deselecting or deactivating.
- c By entering the selcall of the transmitting station.
- d By pressing "00" in the transmitter's ID block.

How can reception of certain NAVTEX broadcasts be prevented?

- a Stations are limited to daytime operation only.
- b The receiver can be programmed to reject certain stations and message categories.
- c Coordinating reception with published broadcast schedules.
- d Automatic receiver desensitization during night hours.

Which of the following statements is true?

- a The GMDSS Radio Operator can program the NAVTEX receiver to automatically reject any category of messages under the master's authority.
- b The GMDSS Radio Operator can program the NAVTEX receiver to reject all messages except navigation warnings, meteorological warnings, and search and rescue information.
- c The GMDSS Radio Operator can select the "None" option in the message category menu.
- d Upon entering a new NAVTEX station's broadcast range, the GMDSS Radio Operators enters the station's selcall number.

What means are used to prevent the reception of unwanted broadcasts by vessels utilizing the NAVTEX system?

- a Operating the receiver only during daytime hours.
- b Programming the receiver to reject unwanted broadcasts.
- c Coordinating reception with published broadcast schedules.
- d Automatic receiver de-sensitization during night hours.

What statement "is true" regarding the control the operator can exercise over the NAVTEX receiver's operation?

- a The operator can set the unit to automatically reject any and all categories of messages if the ship desires to not receive them.
- b The operator can set the unit to reject all messages except navigation, weather and sea warnings, and search and rescue messages.
- c To reduce the number of messages, the operator can select code 00 to indicate "not in coastal passage".
- d Upon entering a coastal area for the first time, the operator enters code KK to indicate "ready to receive NAVTEX".

Which message subject matter can be programmed to be rejected or disabled by the operator of a NAVTEX receiver?

- a Navigational warnings.
- b Meteorological warnings.
- c Pilot Service Messages.
- d All of these.

NAVTEX-3: MESSAGE FORMAT

The NAVTEX message header contains the following?

- a A single letter (A-Z) indicates the NAVTEX transmitting station.
- b A two-digit number (01-99) indicates the NAVTEX message category.
- c Message numbers include a date/time group along with the transmitting station's numerical ID.
- d None of these.

Which of the following message categories cannot be disabled by the GMDSS Radio Operator?

- a Navigational warnings.
- b Meteorological warnings.
- c Search and Rescue information.
- d All of the above.

How are NAVTEX broadcasts transmitted?

- a Using FEC techniques.
- b NAVTEX is transmitted by commercial coast radio stations following their traffic lists.
- c NAVTEX is transmitted only when an urgency or distress broadcast is warranted.
- d No more often than every two hours and should immediately follow the radiotelephone silent periods.

Which determines whether a NAVTEX receiver does not print a particular type of message content?

- a The serial number and type of message have already been received.
- b The subject indicator matches that programmed for rejection by the operator.
- c The transmitting station ID covering your area has not been programmed for rejection by the operator.
- d Both answers a) and b).

Which information determines if a NAVTEX message is to be rejected?

- a Transmitter identity (numerals from 1 to 26 identifying transmitting station within the NAVAREA).
- b Subject indicator (single letter from A to Z indicating the type of message).
- c The Answerback of the receiving station has not been entered in the NAVTEX receiver.
- d Only messages having a serial number 00 are rejected.

NAVTEX broadcasts are sent:

- a In categories of messages indicated by a single letter or identifier.
- b Immediately following traffic lists.
- c On request of maritime mobile stations.
- d Regularly after the radiotelephone silent periods.

SAFETYNET-1: OPERATIONS

Where NAVTEX cannot be feasibly established, what system can be implemented to provide an automated service in coastal waters to receive MSI?

- a SafetyNET.
- b AMVER.
- c VHF DSC.
- d ARQ SITOR.

What action should a GMDSS Radio Operator take when SafetyNET distress or urgency messages are received by the vessel's EGC receiver?

- a No immediate action is required as an audible tone will be generated at the beginning and end of the transmission and a paper printout of the message will be generated.
- b Aural and visual alarms are activated, and require manual deactivation.
- c No immediate action is required by the operator since the transmission will be automatically acknowledged by the receiving vessel.
- d A periodic alarm tone will be heard until the radio operator prints the message from the unit's memory.

What system can provide an automated service in coastal waters where it may not be feasible to establish the NAVTEX service or where shipping density is too low to warrant its implementation?

- a SafetyNET.
- b AMVER.
- c VHF DSC.
- d ARQ SITOR.

Aboard ship, SafetyNET messages can be received by which equipment?

- a VHF DSC.
- b NAVTEX Receiver.
- c Dedicated receiver or optional receiver integrated in vessel's SES.
- d All of these.

SafetyNET messages can be received by which of the following shipboard equipment?

- a NAVTEX.
- b MF and HF NBDP.
- c EGC receiver.
- d All of these.

Marine Safety Information is promulgated via satellite through which system?

- a AMVER.
- b SafetyNET.
- c NAVTEX.
- d Inmarsat-M SES.

SAFETYNET-2: INFORMATION

SafetyNET promulgates what type of information?

- a MSI.
- b Traffic Lists.
- c News advisories.
- d MARAD.

What kind(s) of broadcasts are not available through SafetyNET?

- a MSI and messages to specific geographic areas.
- b Vessel traffic lists.
- c Storm warnings.
- d Distress and urgent bulletins.

Which satellite system promulgates Maritime Safety Information?

- a AMVER.
- b Inmarsat-C SafetyNET.
- c NAVTEX.
- d Inmarsat-M SES.

What information is promulgated by the international SafetyNET?

- a MSI.
- b Traffic Lists.
- c Priority Messages.
- d MARAD.

A vessel using SafetyNet should:

- a Notify the NAVAREA coordinator you are using SafetyNet for MSI (Maritime safety information).
- b Set the receiver to your present NAVAREA.
- c Set the receiver to your destination Ocean Region.
- d Notify the NAVAREA coordinator you are using SafetyNet for MSI (Maritime safety information) and set the receiver to your destination Ocean Region.

In using SafetyNET for MSI (Maritime safety information):

- a If you fail to log-in with your Ocean Region you will receive only unscheduled urgent and distress broadcasts.
- b To receive scheduled and unscheduled broadcasts you must log-in with your Ocean Region Net Control Station (NCS).
- c Your satellite receiver must have Enhanced Group Calling (EGC) capability.
- d All of these.

EGC

Over what system are Enhanced Group Calls transmitted?

- a By COSPAS satellite.
- b By HF SITOR shore stations.
- c By NAVTEX shore stations.
- d By Inmarsat satellite.

How are MSI (Marine safety information) broadcasts received in an EGC receiver integrated with existing Inmarsat equipment when the SES is otherwise engaged in communications?

- a The broadcast message is missed and the Radio Operator must request a retransmission.
- b The broadcast message is stored in the EGC memory and will automatically be printed at the conclusion of the ongoing traffic.
- c The radio operator can request retransmission of messages missing from numeric serial number succession.
- d There is no loss of information since broadcasts of "vital" messages will be repeated.

Which of the following provides a unique automated system capable of addressing messages to predetermined groups of ships or all vessels in both fixed and variable geographic areas?

- a NAVTEX.
- b EGC.
- c AFRTS.
- d NAVAREAs.

What system may be useful for messages, such as local storm warnings or a shore-to-ship distress alert, for which it is inappropriate to alert all ships in the satellite coverage area?

- a NAVTEX.
- b EGC.
- c AMVER.
- d DSC.

What services are available through Enhanced Group Calls?

- a Marine Safety Information and messages to pre-defined groups of subscribers.
- b Marine Safety Information and vessel traffic lists.
- c Hourly NOAA weather broadcasts from the NWS.
- d Coastal weather broadcasts.

What messages originate from registered information providers anywhere in the world and are broadcast to the appropriate ocean region via a CES?

- a SafetyNET messages.
- b AMVER broadcasts.
- c Urgency messages.
- d NAVTEX broadcasts.

NAVAREAS

NAVAREAs referred to in NAVTEX are the same as used in:

- a INMARSAT SafetyNET.
- b GMDSS sea areas.
- c International Vessel Traffic Service.
- d INMARSAT ocean regions.

INMARSAT-C POWER UP, SELF-TEST, CONTROLS AND INDICATOR LAMPS

Which of the following actions should be taken once the vessel is berthed and will not leave port again for several weeks?

- a The GMDSS Radio Operator must notify the NCS that the vessel will be off-line, and wait for the NCS to acknowledge with a confirmation number that must be logged.
- b The Inmarsat-C system can be powered down without taking additional steps once the GMDSS Radio Operator has ensured that all incoming SafetyNET messages have been received and stored.
- c The GMDSS Radio Operator must log out of the Inmarsat-C system.
- d The GMDSS Radio Operator must transmit an all-ships alert to notify all vessels within the satellite's footprint that the vessel will be off-line.

What action should be taken on arrival at every port?

- a An Inmarsat-C system must be powered down.
- b Send a message to the NCS advising arrival in port.
- c Both of the above.
- d None of the above.

Upon power-up, what controls are adjusted on an Inmarsat-C terminal?

- a The antenna Azimuth and Elevation controls.
- b The receiver gain is adjusted for maximum signal.
- c Both of the above.
- d None of the above.

On an Inmarsat-C system soon after power up what might a blinking lamp indicate?

- a The system is not yet locked on to the NCS signal.
- b An EGC message is being received.
- c There is mail being received.
- d None of the above.

On an Inmarsat-C system an alarm sounds:

- a When first powered on.
- b When receiving distress traffic.
- c Both of the above.
- d None of the above.

INMARSAT: LOG-IN, LOG-OUT

Which action must be taken to ensure that incoming message traffic of all priority levels will be received through Inmarsat-C?

- a The system needs only to be commissioned and turned on.
- b No additional action is necessary after turning on the receiver and aiming the antenna at the desired satellite.
- c The GMDSS Radio Operator must log-in to the desired satellite.
- d The GMDSS Radio Operator must log on to the desired satellite and receive the message reference number (MRN) from the CES.

When logging into the Inmarsat system using Inmarsat-C, it is necessary to:

- a Enter your IMN.
- b Enter the CES answer back.
- c Select the Ocean Region.
- d Call the CES and inform them that you are now operating in the appropriate ocean region.

What action should be taken on changing from one ocean region to another?

- a Power the system down and turn the power back on again.
- b Manually realign the antenna.
- c Log out of the current satellite and log in to the correct satellite.
- d Both a) and c) are correct.

INMARSAT: GENERAL SYSTEM OPERATIONS

What is the primary function of an NCS?

- a To monitor and control communications through the Inmarsat satellite for which it is responsible.
- b To provide direct communications between the Inmarsat station placing a call and the station receiving the call.
- c To provide multi-mode communications between the Inmarsat station placing a call and the coast radio station that will deliver it.
- d To determine which satellite is best suited to provide communications between the Inmarsat station placing a call and the station receiving the call.

What is the primary function of a CES?

- a To monitor and control communications through the Inmarsat satellite for which it is responsible.
- b To provide direct communications between the Inmarsat station placing a call and the station receiving the call.
- c To provide multi-mode communications between the Inmarsat station placing a call and the coast radio station that will deliver it.
- d To determine which satellite is best suited to provide communications between the Inmarsat station placing a call and the station receiving the call.

Messages are transmitted by the CES according to what criteria?

- a First In, First Out.
- b Last In, First Out.
- c Priority, e.g.: Distress, Urgency, Safety and Routine.
- d Serial Number.

How is maximum coverage provided by satellites in the maritime satellite service?

- a Four satellites in polar orbit.
- b Four satellites in geo-stationary orbit approximately 22,184 miles above the equator.
- c Four satellites in geo-stationary orbit for each Inmarsat Service (A, B, C and M).
- d Through coordinated use of COSPAS-SARSAT satellites.

INMARSAT: GENERAL SYSTEM OPERATIONS

What is an Inmarsat "Subscriber Number"?

- a This identifies the vessel's selective calling (selcall) number.
- b This is the Inmarsat number that is assigned to a unit for incoming calls.
- c This is the vessel's Inmarsat registration number for accounting authority purposes.
- d This number is used for receiving news and other optional services in FleetNET.

Which of the following statements concerning Inmarsat geostationary satellites is true?

- a They are in a low-earth polar orbit to provide true global coverage.
- b They are in an equatorial orbit to provide true global coverage.
- c They provide coverage to vessels in nearly all of the world's navigable waters.
- d Vessels sailing in equatorial waters are able to use only one satellite whereas other vessels are able to choose between at least two satellites.

What is meant by "CES"?

- a Coast Earth Satellite.
- b Coast Earth Station.
- c Central Equatorial Station.
- d Coastal Equivalent Station.

INMARSAT-C EQUIPMENT AND OPERATIONS

Which mode of communications is NOT possible through an Inmarsat-C SES?

- a Data.
- b Telex.
- c Emergency Activation.
- d Shore-to-ship Facsimile.

What is the average length of time required for a telex sent by Inmarsat-C to be delivered to the addressee?

- a All Inmarsat-C communications are made with real-time connectivity so there is no delay in message delivery.
- b The average delivery time for a message sent by Inmarsat-C is about 10 minutes.
- c Date/time notification of delivery is possible only through Inmarsat-A.
- d The average delivery time for a telex sent by Inmarsat-C is about 10 minutes, but fax and data messages sent by Inmarsat-C require about 30 minutes for delivery.

How is a signal radiated from an Inmarsat-C system's antenna?

- a It is a highly focused directional signal that must be beamed at the desired satellite.
- b It is usually radiated in an omni-directional pattern, but an optional feature allows it to be directional for use when the vessel is on the fringe of the satellite's footprint.
- c It is radiated in an omni-directional pattern.
- d It is radiated in an omni-directional pattern that can be reversed by the Operator to attain directional beaming to an alternate satellite.

What statement is true regarding Inmarsat-C?

- a There is a propagation delay, but a direct connection is made between the ship and shore users.
- b There are delays in establishing the communications then a direct real-time connection is maintained with the other party.
- c This is a store and forward network with an intermediate step that means there is no direct connection between ship and shore users.
- d The telex message is stored until the mailbox is accessed by the station desiring to retrieve their message.

With an Inmarsat-C CES, how are messages routed to receiving stations?

- a Direct connections are made to the receiving stations via gateways.
- b All messages are forwarded via a store and forward network.
- c Intermediary stations are used to connect the sending station with the receiving station in a real-time mode.
- d Messages are stored until the network is polled by the receiving station.

What are the directional characteristics of the Inmarsat-C SES antenna?

- a Highly directional parabolic antenna requiring stabilization.
- b Omni-directional.
- c Wide beam width in a cardioid pattern off the front of the antenna.
- d Very narrow beam width straight-up from the top of the antenna.

INMARSAT-C EQUIPMENT AND OPERATIONS

Which mode of communications is possible through an Inmarsat-C SES?

- a SITOR.
- b Telex.
- c Radiotelephone.
- d DSC

It is possible to transmit all of the following via Inmarsat-C from a vessel except?

- a Telex.
- b Text for delivery by Fax.
- c Voice.
- d Comtex mail and x.400 data services.

Inmarsat-C provides for which of the following?

- a Polling, enhanced group call, and one-way position and data reporting via satellite.
- b FM voice communications via satellite.
- c Two-way messaging and data communications on a store-and-forward basis.
- d Polling, enhanced group call, one-way position and data reporting via satellite, two-way messaging and data communications on a store-and-forward basis.

INMARSAT DISTRESS COMMUNICATIONS

How is a distress message normally initiated through Inmarsat?

- a All Inmarsat units have a dedicated key that can be pressed for immediate action.
- b By adding the word "DISTRESS" in the first line of the message's preamble.
- c Certain Inmarsat units have a dedicated key that can be pressed for immediate action, while other systems provide menu-driven features.
- d By transmitting the distress message on the U.S. Coast Guard's dedicated monitoring channel.

How is a distress priority message ordinarily initiated on board the vessel?

- a By dialing the correct code on the telephone remote unit.
- b By pressing one or more dedicated "distress key/s" on the equipment.
- c By contacting the CES operator, and announcing a distress condition is in existence.
- d By contacting the CES operator using the radiotelephone distress procedure "Mayday... etc."

Which of the following two-way communications can be made through Inmarsat without charge?

- a A service message that advises a vessel of other ship traffic in its vicinity.
- b SafetyNET.
- c Distress traffic.
- d Vessel position information when the ship's GPS fails.

EGC

Upon receipt of SafetyNET messages of the distress or urgency category on the ship's EGC receiver, what action is required by the GMDSS Radio Operator?

- a No immediate action is required as an audible tone will be generated at the beginning and end of the transmission and a paper printout of the message will be generated.
- b Manually reset the alarm.
- c No immediate action is required by the operator since the transmission will be automatically acknowledged by the receiving vessel.
- d A periodic alarm tone will be heard until the radio operator prints the message from the unit's memory.

What can be defined as the service that allows terrestrial information providers to send general information messages to pre-defined groups of subscribers?

- a SafetyNET.
- b COSPAS-SARSAT.
- c InfoNET.
- d FleetNET.

What additional equipment provides the maximum availability for receiving SafetyNET broadcasts when the associated Inmarsat-C is being used for telex communications?

- a An integrated EGC receiver with the existing Inmarsat-C equipment.
- b A separate EGC receiver.
- c HF SSB can be used to receive voice MSI broadcasts.
- d Automatic switching between Inmarsat-C and EGC functions.

What equipment is utilized to transmit Enhanced Group Calls?

- a COSPAS satellite.
- b HF SITOR shore stations.
- c NAVTEX shore stations.
- d Inmarsat satellite.

What is the equipment arrangement that provides the maximum availability for reception of MSI broadcasts when using Inmarsat-C for telex communications?

- a Integrating EGC receiver with the existing Inmarsat-C equipment.
- b Separate EGC receiver.
- c Redundancy using HF SSB to receive voice broadcasts.
- d Automatic switching between Inmarsat-C and EGC functions.

INMARSAT EQUIPMENT FAULTS AND MAINTENANCE

A vessel, before transiting the Panama Canal, on a voyage from San Diego to Miami, loses the ability to communicate via Inmarsat. The most likely cause is:

- a The vessel has sailed beyond the coverage area of the Southbury Shore Station.
- b The vessel has sailed beyond the coverage area of the Western Atlantic satellite.
- c The satellite orbit is beyond the usable range of the SES.
- d The vessel has sailed beyond the coverage area of the Pacific satellite.

A vessel is experiencing problems tracking the satellite in an Inmarsat-C SES. The problem could be:

- a Extremely heavy rain/snow storms.
- b Shadowing caused by an obstacle, such as a mast, between the SES antenna and the satellite.
- c The vessel is on the fringe of the coverage area of the satellite.
- d All of these.

Which functions may the holder of a GMDSS Radio Operator License perform on the Inmarsat-C equipment?

- a Selection of CES.
- b Maintain the antenna clear of soot, paint, etc.
- c Logon, traffic and logoff functions.
- d All of these.

MF-HF: CONTROLS: VOLUME, SQUELCH, POWER, FREQUENCY, MODE

MF/HF Transceiver Power levels should be set:

- a To the lowest level necessary for effective communications.
- b To the level necessary to maximize the propagation radius.
- c To the highest level possible so as to ensure other stations cannot "break-in" on the channel during use.
- d Both a) and c).

Which statement regarding GMDSS MF/HF Transceiver frequency set-up is true:

- a Transmit and receive frequencies may be manually entered from the keypad.
- b ITU channels must be recalled from a database or memory.
- c All consoles allow both manual keypad entry and ITU channel recall from a database.
- d Depending on the manufacturer, either a) or b) could be true.

Which statement regarding GMDSS MF/HF Transceiver frequency set-up is true:

- a Transmit and receive frequencies must always be manually entered from the keypad.
- b Transmit and receive frequencies must always be recalled from a database or memory.
- c Some consoles allow both manual keypad entry and ITU channel recall from a database or memory, while others do not.
- d None of the above.

To set-up the MF/HF Transceiver for a telex call to a coast station, the operator must:

- a Select J3E mode for proper Sitor operations.
- b Select F1B mode or J2B mode, depending on the equipment manufacturer.
- c Select F1B/J2B modes or J3E mode, depending on whether ARQ or FEC is preferred.
- d None of the above.

To set-up the MF/HF Transceiver for a voice call to a coast station, the operator must:

- a Select J3E mode for proper Sitor operations.
- b Select F1B mode or J2B mode, depending on the equipment manufacturer.
- c Select F1B/J2B modes or J3E mode, depending on whether FEC or ARQ is preferred.
- d Select J3E mode for proper voice operations.

MF-HF: FREQUENCIES: SIMPLEX, DUPLEX, HALF-DUPLEX

An ITU simplex channel frequency assignment is defined as:

- a Transmit and receive frequencies must be different.
- b Transmit and receive frequencies must be identical.
- c Transmit and receive frequencies may be different, depending on whether communications are ship-shore or ship to ship.
- d Transmit and receive frequencies are different regardless of emission mode.

An ITU duplex channel frequency is defined as:

- a Transmit and receive frequencies may be different, depending on whether communications are ship-shore or ship to ship.
- b Transmit and receive frequencies must be identical.
- c Transmit and receive frequencies must be different.
- d Transmit and receive frequencies may be different, depending on whether communications are ship-shore or ship to ship.

MF-HF: ITU CHANNELS

Which of the following defines "ITU Channel 1216"?

- a Ch-12 in the 16 MHz band.
- b Ch-1216 in the MF band.
- c Ch-16 in the 12 MHz band.
- d This would indicate the 16th channel in the 12 MHz band, but Ch-1216 does not yet exist as there are currently only 15 possible channels.

Which of the following is a valid 22-MHz ITU Channel?

- a HF Ch-2206.
- b VHF Ch-22.
- c Ch-22A when used for VTS communications.
- d Ch-70 (DSC only).

What is meant by the term "ITU channel"?

- a This refers to a vessel's selcall number.
- b This refers to an internationally standardized assignment of frequency pairings for common use.
- c This refers to VHF channels 1-28 and 60-88.
- d None of the above.

ITU channel 1604 would mean:

- a Ch-16 in the 4 MHz band.
- b Ch-4 in the 16 MHz band.
- c Ch-1604 in the MF band.
- d 1604 is the Channel number. It has no relevance to frequency bands.

Which is a valid ITU Designation?

- a Ch-1604
- b Ch-706
- c "Approved for GMDSS Stations".
- d "Type Approved Under FCC Part 80 Rules and Regulations".

ITU channels are:

- a Frequency assignments specific to U.S. vessels only.
- b VHF-FM frequencies.
- c International Traffic Utility frequencies.
- d An international designation of specific frequencies.

MF-HF: MODULATION, BANDWIDTH & EMISSIONS

For RF communications, "modulation" is best defined as:

- a The combination of information or intelligence with a carrier frequency.
- b Using a single carrier frequency with the proper power level.
- c Setting up the transceiver with the correct bandwidth to ensure proper communications.
- d The combination of the received frequency and oscillator frequency in the mixer.

For RF communications, "bandwidth" is best defined as:

- a The modulation technique required to insure proper ITU channel spacing.
- b The emission designation resulting from the desired modulation technique.
- c The portion of the radio spectrum consumed by a particular emission selection and modulation technique.
- d The portion of the radio spectrum reserved for frequency allocations by the ITU.

In FM communications, the information is applied to the carrier by:

- a Varying the amplitude or the frequency of the carrier, depending on Double or Single-Sideband operations.
- b Varying the frequency of the carrier.
- c Varying only the frequency of the carrier, depending on Double or Single-Sideband operations.
- d Varying the amplitude of the carrier.

The proper sequence of emissions corresponding to the sequence AM-Voice DSB, SSB-Voice without carrier, USB-Voice with carrier and FM-Voice, is:

- a A3E, H3E, J3E, F3E.
- b A3E, J3E, H3E, F3E.
- c J3E, H3E, A3E, F3E.
- d H3E, A3E, J3E, F3E.

MF-HF: VOICE OPERATIONS-CALLING A COAST STATION

When placing a SSB MF/HF call to a Coast Station, you should always:

- a Choose the closest station to ensure a quick connection.
- b Make sure the frequency is not occupied.
- c Tune the transmitter on another frequency.
- d Wait until the coast station sends his Traffic List.

How are high seas (HF) radiotelephone communications initially established between a vessel and a public correspondence station?

- a The vessel listens for "free signals" and calls the public correspondence station on the NBDP calling channel with the strongest marker signal.
- b The vessel calls the public correspondence station on VHF Channel 16 and the two stations then switch to the working channel.
- c Public Correspondence Stations operate NBDP only.
- d The vessel calls and establishes voice contact with the public correspondence station on a channel that the station is known to monitor, and the two stations then proceed with their business.

What is the best procedure for calling another ship station using HF radiotelephone when the signals are weak but readable?

- a On a properly selected ITU channel, give the call sign of the ship being called three times using the ICAO alphabet, and the words "this is" followed by the call sign of the ship initiating the call three times, using the ICAO alphabet, and concluding with "over."
- b Give the name of the ship being called three times, and the words "this is" followed by the name of the ship initiating the call three times, and concluding with "over."
- c Instruct the nearest public correspondence station to add the desired ship's call sign to the station's traffic list.
- d Notify the local vessel traffic service control station of your intention to contact a specific vessel, and request the VTS operator place the call on channel 22A.

What is the correct procedure for calling a coast radio station using HF radiotelephone?

- a On a properly selected ITU channel, give the name of the coast radio station being called three times, and the words "this is" followed by the name of the ship initiating the call three times, and concluding with "over."
- b Contact the nearest U.S.C.G. station to add the desired ship's call sign to the station's traffic list.
- c On a properly selected ITU channel, give the call sign of the coast radio station being called three times using the ICAO alphabet, and the words "this is" followed by the call sign of the ship initiating the call three times, using the ICAO alphabet, and concluding with "over."
- d Request the VTS operator place the call on channel 22A.

MF-HF: DSC CONTROLLER CALL PROGRAMMING

The purpose of the MF/HF DSC controller is?

- a Providing for the formatting and transmission of outgoing DSC calls.
- b Permitting control of transceiver operations via an interface.
- c Providing the scanning watch receiver capability on the 6 MF/HF DSC frequencies.
- d Both a) and b) are crucial functions of a DSC Controller.

A "Distress Hot Key" MF/HF DSC Distress Alert:

- a May go out on 2187.5 kHz or may go out on another DSC frequency, depending on the manufacturer.
- b Must go out on 2187.5 kHz and 8414.5 kHz to trip DSC alarms on the mandatory MF/HF DSC watch frequencies.
- c Must go out on 2187.5 kHz to alert the nearest vessels and coast stations.
- d None of the above.

A Distress Priority DSC call may be formatted and transmitted specifying and requesting:

- a Nature of Distress, vessel position, follow-on frequency, only voice follow-on communications.
- b Nature of Distress or alternate frequency but not both in a single call, vessel position or alternate frequency/emission but not both in a single call, voice or telex follow-up communications.
- c Nature of Distress or alternate frequency but not both in a single call, vessel position or alternate frequency/emission but not both in a single call, only telex follow-up communications
- d Nature of Distress, vessel position, follow-on frequency, only telex follow-on communications.

A multi-frequency MF/HF DSC Distress Alert:

- a Must be transmitted in ascending order of propagation radius to alert nearby ships first.
- b May be transmitted on the mandatory MF/HF DSC watch frequencies first, and then on the others.
- c Either a) or b), depending on the manufacturer.
- d May be transmitted in any order programmed by the GMDSS operator.

To make a call to another vessel requesting voice communications regarding important company business, the GMDSS operator should:

- a Select Urgent priority, enter other vessel's MMSI, specify legal alternate frequency, F1B emission and transmit the properly formatted DSC call.
- b Select Routine priority, enter other vessel's MMSI, specify legal alternate frequency, J2B emission and transmit the properly formatted DSC call.
- c Select Routine priority, enter own vessel's MMSI, specify legal alternate frequency, J3E emission and transmit the properly formatted DSC call.
- d None of the above.

To make a call to another vessel requesting telex communications regarding important company business, the GMDSS operator should:

- a Select Routine priority, enter other vessel's MMSI, specify legal alternate frequency, F1B emission and transmit the properly formatted DSC call.
- b Select Urgent priority, enter other vessel's MMSI, specify legal alternate frequency, F1B emission and transmit the properly formatted DSC call.
- c Select Routine priority, enter own vessel's MMSI, specify legal alternate frequency, F1B emission and transmit the properly formatted DSC call.
- d Select Routine priority, enter other vessel's SelCall for telex specify legal alternate frequency, F1B emission and transmit the properly formatted DSC call.

MF-HF: PROPAGATION #1: DAYTIME, NIGHT TIME, WINTER-SUMMER

The "short rules" of propagation necessary to select the appropriate frequency band are:

- a Shorter Distance = Higher Frequency, Daytime = Higher Frequency.
- b Shorter Distance = Higher Frequency, Daytime = Lower Frequency.
- c Shorter Distance = Lower Frequency, Daytime = Higher Frequency.
- d Shorter Distance = Lower Frequency, Daytime = Lower Frequency.

GMDSS operators should learn which of the following propagation "rules of thumb"?

- a Longer distance = lower frequency, Shorter Distance = higher frequency; Daytime = higher frequency, nighttime = lower frequency.
- b Longer distance = lower frequency, Shorter Distance = lower frequency, Daytime = lower frequency, nighttime = higher frequency.
- c Longer distance = higher frequency, Shorter Distance = lower frequency, Daytime = higher frequency, nighttime = lower frequency.
- d Longer distance = higher frequency, Shorter Distance = higher frequency, Daytime = lower frequency, nighttime = higher frequency.

GMDSS operators should routinely focus on the factors affecting propagation in what priority?

- a Distance & Time of Day, Seasonal variations, Sunspot cycle, Solar flare alerts.
- b Sunspot cycle, Distance & Time of Day, Seasonal variations, Solar flare Alerts.
- c Solar flare alerts, Distance & Time of Day, Sunspot cycle, Seasonal variations.
- d Solar flare alerts, Sunspot cycle, Seasonal variations, Distance & Time of Day.

To ensure effective communications, GMDSS operators should:

- a Rely on the equipment calculations of Optimum Usable Frequency.
- b Employ the short rules of propagation selection.
- c Rely on previous successful communications on the selected frequency band.
- d Taken together, both b and c are good operational practices.

MF-HF: PROPAGATION #2: DAYTIME, NIGHT TIME, WINTER-SUMMER

A ship at anchor has been communicating effectively with a shore station approximately 500 miles (805 km) distant on a frequency in the 16 MHz band periodically throughout the day. Toward the late afternoon and evening, what effect should be noticed?

- a Communications should be maintained with slight improvement in the signal received from the shore station.
- b The gray line effect will prevent communications after dark.
- c Communications should gradually deteriorate and become impossible on this frequency at night.
- d Communications should improve and peak at night.

A ship at anchor has been communicating marginally with a shore station approximately 200 miles (322 km) distant on a frequency in the 4 MHz band periodically throughout the day. Toward the late afternoon and evening, what effect should be noticed?

- a Communications should be maintained with slight improvement in the signal received from the shore station.
- b Communications should slowly deteriorate but may be continued throughout the night.
- c Communications should gradually deteriorate and become impossible on this frequency by night.
- d Communications should gradually improve and peak at night and early morning.

At mid-day in summer, what would be the best choice in attempting to communicate, using NBDP with a shore station some 800 miles (1,287 km) distant?

- a VHF-FM.
- b Higher HF bands.
- c Lower HF bands.
- d MF

At mid-night, what would be the best choice in attempting to communicate, using NBDP with a shore station some 800 miles (1,287 km) distant?

- a VHF-FM.
- b Higher UHF bands.
- c HF bands.
- d Communications is impossible at this distance.

At mid-day, what would be the best choice in attempting to communicate with a shore station some 75 miles (121 km) distant?

- a VHF-FM.
- b 22 MHz band.
- c 16 MHz band.
- d MF

MF-HF: DSC CONTROLLER ALERT/CALL RESPONSE

A DSC Distress call is received by your vessel and your transceiver frequency display reads: Transmit = 4207.5 kHz and Receive = 4207.5 kHz -- what information can you infer from this?

- a The DSC controller decoded the requested voice frequency as 4207.5 kHz Simplex and your DSC controller has automatically set-up your transceiver.
- b The DSC controller decoded the contents of the DSC call but the request is illegal.
- c Both a) and b) are true.
- d The DSC call came in on 4 MHz DSC and you should set-up your transmitter and respond on the appropriate voice follow-on frequency.

You receive an Urgent DSC call to all vessels specifying an alternate telex frequency & emission. If your transceiver frequency display reads: 2174.5 kHz transmit & 4207.5 kHz receive:

- a Either the call was incorrectly formatted by the other vessel or the other vessel has presumably lost MF/HF voice capability.
- b The DSC controller decoded the contents of the DSC call but the request is illegal.
- c Both a) and d) are true.
- d The DSC call came in on 4 MHz DSC but either the call was incorrectly formatted by the other vessel or your controller failed to decode the receive field of the alternate frequency entry and only your Transmit set-up is correct.

You receive a Routine DSC call specifying an alternate working voice frequency & emission. Your transceiver frequency display reads: 4125.0 kHz transmit 4125.0 kHz receive:

- a The requested alternate working channel was 4125.0 kHz Simplex and your DSC controller has automatically set-up your transceiver.
- b The DSC controller decoded the contents of the DSC call and has automatically set-up your transceiver but the request is illegal.
- c Both a) and b) are true.
- d The DSC call came in on 4125 kHz and you should respond on the alternate working frequency.

You receive a Routine DSC call to your vessel, without specifying an alternate working voice frequency & emission. If your transceiver frequency display reads: 2177 kHz transmit 2177 kHz receive what must you do?

- a Tune the transmitter and make a voice call to the other vessel on 2187.5 kHz.
- b Access the data directory to determine the alternate frequency and then make a voice call to the other vessel on the alternate frequency.
- c Manually Acknowledge the DSC call on the alternate frequency, then make a voice call to the other vessel on 2182.0 kHz.
- d Call other vessel on 2182.0 kHz and shift to a proper working frequency.

An incoming DSC Distress Alert on 8414.5 kHz will have what result?

- a The DSC controller will emit both an audible and visual alarm.
- b The particulars of the alert may be printed out.
- c The distress information contained in the alert will be sent to the data directory.
- d All of the above.

MF-HF: ROUTINE COMMUNICATIONS WITH COAST STATIONS, MESSAGE HANDLING

What usually comprises a coast station's call sign?

- a Three numerals from a group assigned to the coast station's nation by the ITU.
- b Four numerals from a group assigned to the coast station's nation by the ITU.
- c Three letters from a group assigned to the coast station's nation by the ITU.
- d Four letters from a group assigned to the coast station's nation by the ITU.

What is the term normally used to describe a scheduled broadcast by a coast station to identify those vessels for which the coast station is holding message traffic?

- a AAIC list.
- b Traffic Radio Service (TRS).
- c Traffic list.
- d Mobile Traffic Radio Service (MTRS).

How often does a coast radio station that regularly broadcasts traffic lists transmit the list?

- a As often as is deemed necessary to effect delivery.
- b No less often than every four hours.
- c Only on an as-needed basis.
- d Once per 24-hour period.

What is an accounting authority?

- a An agency responsible for collecting payments on behalf of a vessel.
- b An agency responsible for verifying the accuracy of a shipping company's financial records.
- c An agency responsible for settling a vessel's financial accounts for chargeable communications.
- d An agency responsible for establishing tariff rates for commercial communications.

What message charges are incurred when sending a ship's business message through a public correspondence station?

- a Ship station (SS) and land line (LL) charges.
- b Ship station (SS) and coast (CC) charges.
- c Ship station (SS), coast (CC), and land line (LL) charges.
- d Coast (CC) and land line (LL) charges.

MF-HF: EQUIPMENT FAULTS & TESTING

Which would indicate a malfunction in a 2182 kHz radiotelephone system?

- a No discernable traffic has been heard on the 2182 kHz during the radiotelephone silent periods.
- b Failure to contact another station 60 miles distant during daytime operation.
- c Dramatic decrease in noise level observed during night and early morning hours.
- d The visual indication of power to the antenna fluctuates while testing the radiotelephone alarm signal generator into an artificial antenna.