public correspondence by radiotelegraph at a public coast station, a ship station, or both.

- (2) Second Class Radiotelegraph Operator's Certificate.
 - (i) Telegraphy Elements 1 and 2;
 - (ii) Written Elements 1, 5, and 6.
- (3) Third Class Radiotelegraph Operator's Certificate.
 - (i) Telegraphy Elements 1 and 2;
 - (ii) Written Elements 1 and 5.
- (4) General Radiotelephone Operator License: Written Elements 1 and 3.
- (5) Marine Radio Operator Permit: Written Element 1.
- (6) GMDSS Radio Operator's License: Written Elements 1 and 7, or a Proof of Passing Certificate (PPC) issued by the United States Coast Guard or its designee representing a certificate of competency from a Coast Guard-approved training course for a GMDSS endorsement.
- (7) Restricted GMDSS Radio Operator License: Written Elements 1 and 7R, or a Proof of Passing Certificate (PPC) issued by the United States Coast Guard or its designee representing a certificate of competency from a Coast Guard-approved training course for a GMDSS endorsement.
- (8) GMDSS Radio Maintainer's License: Written Elements 1, 3, and 9.
- (9) Ship Radar Endorsement: Written Element 8.

[58 FR 9124, Feb. 19, 1993, as amended at 59 FR 3795, Jan. 27, 1994; 68 FR 46959, Aug. 7, 2003]

§ 13.203 Examination elements.

(a) A written examination (written Element) must prove that the examinee possesses the operational and technical qualifications to perform the duties required by a person holding that class of commercial radio operator license. For each Element, the Commission shall establish through public notices or other appropriate means the number of questions to be included in the question pool, the number of questions to be included in the examination, and the number of questions that must be answered correctly to pass the examination. Each written examination must consist of questions relating to the pertinent subject matter, as follows:

- (1) Element 1 (formerly Elements 1 and 2): Basic radio law and operating practice with which every maritime radio operator should be familiar. Questions concerning provisions of laws, treaties, regulations, and operating procedures and practices generally followed or required in communicating by means of radiotelephone stations.
- (2) Element 3: General radiotelephone. Questions concerning electronic fundamentals and techniques required to adjust, repair, and maintain radio transmitters and receivers at stations licensed by the FCC in the aviation, maritime, and international fixed public radio services.
- (3) Element 5: Radiotelegraph operating practice. Questions concerning radio operating procedures and practices generally followed or required in communicating by means of radiotelegraph stations primarily other than in the maritime mobile services of public correspondence.
- (4) Element 6: Advanced radiotelegraph. Questions concerning technical, legal and other matters applicable to the operation of all classes of radiotelegraph stations, including operating procedures and practices in the maritime mobile services of public correspondence, and associated matters such as radio navigational aids, message traffic routing and accounting, etc.
- (5) Element 7: GMDSS radio operating practices. Questions concerning GMDSS radio operating procedures and practices sufficient to show detailed practical knowledge of the operation of all GMDSS sub-systems and equipment: ability to send and receive correctly by radiotelephone and narrowband direct-printing telegraphy; detailed knowledge of the regulations applying to radio communications, knowledge of the documents relating to charges for radio communications and knowledge of those provisions of the International Convention for the Safety of Life at Sea which relate to radio; sufficient knowledge of English to be able to express oneself satisfactorily both orally and in writing; knowledge of and ability to perform each function listed in §80.1081 of this chapter; and knowledge covering the

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requirements set forth in IMO Assembly Resolution on Training for Radio Personnel (GMDSS), Annex 3.

- (6) Element 7R: Restricted GMDSS radio operating practices. Questions concerning those GMDSS radio operating procedures and practices that are applicable to ship stations on vessels that sail exclusively in sea area A1, as defined in §80.1069 of this chapter, sufficient to show detailed practical knowledge of the operation of pertinent GMDSS sub-systems and equipment; ability to send and receive correctly by radio telephone and narrow-band direct-printing telegraphy; detailed knowledge of the regulations governing radio communications within sea area A1, knowledge of the pertinent documents relating to charges for radio communications and knowledge of the pertinent provisions of the International Convention for the Safety of Life at Sea; sufficient knowledge of English to be able to express oneself satisfactorily both orally and in writing; knowledge of and ability to perform each pertinent function listed in §80.1081 of this chapter; and knowledge covering the pertinent requirements set forth in IMO Assembly Resolution Training for Radio Personnel (GMDSS), Annex 3.
- (7) Element 8: Ship radar techniques. Questions concerning specialized theory and practice applicable to the proper installation, servicing and maintenance of ship radar equipment in general use for marine navigational purposes.
- (8) Element 9: GMDSS radio maintenance practices and procedures. Questions concerning the requirements set forth in IMO Assembly on Training for Radio Personnel (GMDSS), Annex 5 and IMO Assembly on Radio Maintenance Guidelines for the Global Maritime Distress and Safety System related to Sea Areas A3 and A4.
- (b) A telegraphy examination (telegraphy Elements) must prove that the examinee has the ability to send correctly by hand and to receive correctly by ear texts in the international Morse code at not less than the prescribed speed, using all the letters of the alphabet, numerals 0–9, period, comma, question mark, slant mark, and prosigns AR, BT, and SK.

- (1) Telegraphy Element 1: 16 code groups per minute.
- (2) Telegraphy Element 2: 20 words per minute.
- (3) Telegraphy Element 3: 20 code groups per minute.
- (4) Telegraphy Element 4: 25 words per minute.

[58 FR 9124, Feb. 19, 1993, as amended at 69 FR 64671, Nov. 8, 2004; 73 FR 4479, Jan. 25, 2008]

§13.207 Preparing an examination.

- (a) Each telegraphy message and each written question set administered to an examinee for a commercial radio operator license must be provided by a COLEM.
- (b) Each question set administered to an examinee must utilize questions taken from the applicable Element question pool. The COLEM may obtain the written question sets from a supplier or other COLEM.
- (c) A telegraphy examination must consist of a plain language text or code group message sent in the international Morse code at no less than the prescribed speed for a minimum of five minutes. The message must contain each required telegraphy character at least once. No message known to the examinee may be administered in a telegraphy examination. Each five letters of the alphabet must be counted as one word or one code group. Each numeral, punctuation mark, and prosign must be counted as two letters of the alphabet. The COLEM may obtain the telegraphy message from a supplier or other COLEM.

§13.209 Examination procedures.

- (a) Each examination for a commercial radio operator license must be administered at a location and a time specified by the COLEM. The COLEM is responsible for the proper conduct and necessary supervision of each examination. The COLEM must immediately terminate the examination upon failure of the examinee to comply with its instructions.
- (b) Each examinee, when taking an examination for a commercial radio operator license, shall comply with the instructions of the COLEM.
- (c) No examination that has been compromised shall be administered to