



TRC-20

TELECOMMUNICATIONS
REGULATION CIRCULAR

GUIDE FOR CLASSES "C", "D" AND
"E" APPROVED EXAMINERS
CONDUCTING EXAMINATIONS FOR
RADIOTELEPHONE OPERATOR'S
RESTRICTED CERTIFICATES
(AERONAUTICAL)

TELECOMMUNICATIONS REGULATION CIRCULARS ARE
ISSUED FROM TIME TO TIME TO PROVIDE INFORMATION
TO THOSE ENGAGED IN TELECOMMUNICATIONS IN
CANADA. THE CONTENT OF THESE CIRCULARS IS
SUBJECT TO CHANGE AT ANY TIME IN KEEPING WITH
NEW DEVELOPMENTS.

EFFECTIVE DATE: APRIL 1, 1980

TELECOMMUNICATION REGULATORY SERVICE

CRT-20

CIRCULAIRE DE LA
RÉGLEMENTATION DES
TÉLÉCOMMUNICATIONS

INSTRUCTIONS À L'INTENTION
DES EXAMINATEURS AGRÉÉS
DE CLASSES "C", "D" ET "E"
FAISANT PASSER DES EXAMENS
POUR LES CERTIFICATS
RESTREINTS DE RADIOTÉLÉ-
PHONISTE (AÉRONAUTIQUE)

LES CIRCULAIRES DE LA DIRECTION DE LA RÉGLEMEN-
TATION DES TÉLÉCOMMUNICATIONS SONT PUBLIÉES EN
VUE DE SERVIR DE GUIDE À CEUX QUI S'OCCUPENT
DES TÉLÉCOMMUNICATIONS AU CANADA. LES RENSEI-
GNEMENTS CONTENUS DANS CES CIRCULAIRES PEUVENT
ÊTRE MODIFIÉS EN TOUT TEMPS.

MISE EN VIGUEUR: 1^{er} AVRIL, 1980

SERVICE DE LA RÉGLEMENTATION
DES TÉLÉCOMMUNICATIONS

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TELECOMMUNICATIONS
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CIRCULAR

CIRCULAIRE DE LA
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TELECOMMUNICATIONS

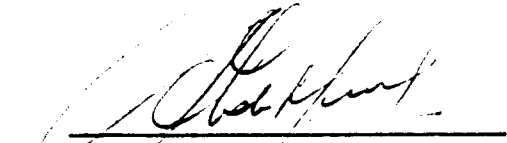
Telecommunications Regulation Circulars are intended for the guidance of those who are actively engaged in telecommunications in Canada.

Les circulaires de la Direction de la réglementation des télécommunications servent de guide à ceux qui s'occupent activement des télécommunications au Canada.

This circular provides class "C", "D" and "E" approved examiners with the necessary information for conducting examinations for Radiotelephone Operators' Restricted Certificates (Aeronautical).

Cette circulaire fournit aux examinateurs agréés de classes "C", "D", et "E" les renseignements nécessaires à l'examen des candidats pour les Certificats restreints de radiotéléphoniste (Aéronautique).

Le Directeur général,
Service de la réglementation
des télécommunications



Dr. John deMercado,
Director General,
Telecommunication
Regulatory Service.

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GUIDE FOR CLASS "C", "D" and "E" APPROVED EXAMINERS
CONDUCTING EXAMINATIONS FOR RADIOTELEPHONE
OPERATOR'S RESTRICTED CERTIFICATE (AERONAUTICAL)

- General 1. This circular sets out the conditions to be satisfied in order to obtain a Radiotelephone Operator's Restricted Certificate (Aeronautical).
- Physical Fitness 2. A candidate's hearing should not be less than 75 percent of normal in each ear. Where a candidate's hearing is less than 75 percent of normal in one ear, or where 75 percent of normal hearing is obtained with the aid of a hearing aid, the candidate is to be examined by a departmental examiner.
- Language 3. If the examination is conducted in French, draw the candidate's attention to Air Navigation Order, Series 1, no. 1, respecting voice communications.
- Form of Examination 4. Carry out the five part informal examination in the following sequence.
- Whisper Voice Test 4.1 Test the candidate's ability to hear in each ear, a whisper, delivered from a distance of two metres. If he fails in this, discontinue the examination.
- Articulation Test 4.2 Simulate a situation where the candidate acts as a radiotelephone operator on an aircraft or aeronautical station and transmits a message of approximately fifteen words using correct calling and operating procedures.
- Transcription Test 4.3 Test the candidate's ability to receive and transcribe (not necessarily verbatim) a simulated aeronautical weather broadcast.
- Practical 4.4 Test the candidate's ability to make adjustments to Aeronautical Mobile Radio Equipment.
- Operating Procedures and Regulations 4.5 Test the candidate, as outlined in Appendices 'A' and 'B', to determine whether he possesses an adequate knowledge of the procedures and regulations.

Form 16-148 (Radio-telephone Operator's Restricted Certificate) 5. When a candidate passes the examination, give him a Radiotelephone Operator's Restricted Certificate (Form 16-148). Print all entries.

Information on completing Form 16-148 5.1 Name: Indicate the candidate's surname followed by his given name.

Class: Select appropriate code from Form 16-148.

Date of issue: Indicate day, month and year.

Transaction: Select appropriate code from Form 16-148.

Restriction: Select code, if applicable.

Date of Birth: Indicate day, month and year.

Country of Birth: Select appropriate code from Appendix "C".

Place of Birth: Indicate city and province.

Operator's Signature: Successful candidate's normal signature.

Examiners: Print your name, class, location, and sign form.

Note: Class "C" examiners (Flying Instructors) must also indicate their pilot licence number.

- Distribution 5.2 Form 16-148 which is printed in triplicate is to be distributed as follows:
- 1) white to the candidate
 - 2) yellow to the Department of Communications (DOC)
 - 3) pink to the examiner
- Discrepancy 5.3 If a discrepancy is discovered after the yellow copy in has been forwarded to DOC, proceed as follows: completed Form 16-148
- 1) write the word 'delete' across the original (white copy),
 - 2) complete a new Form 16-148,
 - 3) staple the deleted white copy to the new yellow copy and forward to DOC.
- Fee 6. There is no fee for a Radiotelephone Operator's Restricted Certificate (Aeronautical) examination.
- Approved 7. There are three classes of approved examiners: Examiners
- i) Category 1 and Category 2, Flying Instructors (Class "C"); including Department of National Defense check pilots stationed overseas;
 - ii) Selected airlines employees (Class "D");
 - iii) Transport Canada (TC) selected employees (Class "E").
- Class "C" 7.1 Category 1 and Category 2 Flying Instructors, Examiners authorized in writing by the DOC, may conduct examinations and give Radiotelephone Operators' Restricted Certificates to aircraft pilots.
- Class "D" 7.2 A selected employee of a Canadian airline authorized Examiners in writing by the DOC may conduct examinations and give Radiotelephone Operator's Restricted Certificates for their own ground employees.

Class "E" Examiners 7.3 Selected employees of the TC (Telecommunications and Electronics Branch, Air Administration, Air Traffic Services Supervisors) authorized in writing by the DOC may conduct examinations and give Radiotelephone Operator's Restricted Certificates for their own ground employees.

Replacement of Certificates 8. Only DOC examiners may replace certificates that are either mutilated, lost or destroyed.

PROCEDURE

Note 1: You may refer to the following examples for guidance.

Note 2: Determine from the interview, whether the candidate has sufficient knowledge of basic procedure principles to qualify and to act as a radiotelephone operator on board an aircraft.

Oral Procedure Questions

1. What precautions should an operator take before calling or making a transmission?
2. Give an example of a call from an aircraft station to a control tower.
3. Give an example of how you would reply to a call from a control tower.
4. a) How is a radio station identified?
b) When an operator is uncertain of the identification or call sign of the calling station, what is the procedure to be taken?
5. a) What precautions are to be taken before making test signals?
b) For what period may test signals continue?
6. Give an example of how you would request a signal check from a control tower.
7. Give an example of a reply to a request for a signal check from a control tower.

8. What do the following expressions indicate?
OUT; ROGER; SAY AGAIN; WORDS TWICE; CORRECTION;
OVER.
9. Using the phonetic alphabet spell (select a
word). When should this alphabet be used?
10.
 - a) How is a message acknowledged?
 - b) What is the procedure used to obtain a
repetition of a message?
 - c) What is the procedure for making
corrections to a message?

RADIO REGULATIONS

Note 1: You may refer to the following examples for guidance.

Note 2: Determine from the interview, whether the candidate has sufficient knowledge of basic regulations to qualify and to act as a radiotelephone operator.

Oral Regulations Questions

1. a) What does the spoken word "MAYDAY" indicate?
b) Give an example of a distress call.
c) On whose authority may a distress call be made?
2. a) What information should be contained in a distress message?
b) Give an example of a distress message.
3. a) On what frequency would you transmit a distress call?
b) If you did not receive an answer to a distress message sent on the distress frequency, may another frequency be used?
4. a) Assuming that your station is no longer in distress, how would you notify or advise other stations that the distress situation has ended?
5. a) What action would you take if you heard a distress call?
b) Give an example of an acknowledgement of a distress message.

- c) What precautions would you take to prevent interference to distress traffic?
 - d) What station is the controlling station during a distress incident?
6. a) What is the spoken word for the urgency signal?
- b) What does the urgency signal indicate?
- c) What priority has the urgency signal over other communications?
7. a) What procedure would you follow if you heard the urgency signal?
- b) How long would you continue to listen after hearing the urgency signal?
- c) Give an example of an urgency message addressed to:
- 1) a specific station; and 2) all stations.
8. a) What is the spoken word for the safety signal?
- b) What does the safety signal indicate?
9. What kind of language is not permitted in the exchange of radiocommunications?
10. What authority is required for the establishment of a radio station?

<u>COUNTRY</u>	<u>CODE</u>	<u>PAYS</u>
Afghanistan (Democratic Republic of)	1	Afghanistan (République Démocratique d')
Albania (Socialist People's Republic of)	2	Albanie (République Populaire Socialiste d')
Algeria (Algerian Democratic and Popular Republic)	99	Algérie (République Algérienne Démocratique et Populaire)
Angola (People's Republic of)	99	Angola (République Populaire d')
Argentine Republic	3	Argentine (République)
Australia	4	Australie
Austria	5	Autriche
Bahamas (Commonwealth of the)	8	Bahamas (Commonwealth des)
Bahrain (State of)	99	Bahreïn (Etat de)
Bangladesh (People's Republic of)	99	Bangladesh (République Populaire du)
Barbados	8	Barbade
Belgium	7	Belgique
Benin (People's Republic of)	99	Bénin (République Populaire du)
Bolivia (Republic of)	10	Bolivie (République de)
Botswana (Republic of)	99	Botswana (République de)
Brazil (Federative Republic of)	11	Bésil (République Fédérative du)
Bulgaria (People's Republic of)	14	Bulgarie (République Populaire de)
Burma (Socialist Republic of the Union of)	15	Birmanie (République Socialiste de l'Union de)
Burundi (Republic of)	99	Burundi (République du)
Byelorussian Soviet Socialist Republic	99	Biélorussie (République Socialiste Soviétique de)
Cameroon (United Republic of)	99	Cameroun (République Unie du)
Canada	17	Canada
Cape Verde (Republic of)	99	Cap-Vert (République du)
Central African Republic	99	Centrafricaine (République)
Chad (Republic of the)	99	Tchad (République du)
Chile	19	Chili
China (People's Republic of)	20	Chine (République Populaire de)
Colombia (Republic of)	21	Colombie (République de)
Comoros (Federal and Islamic Republic of the)	99	Comores (République Fédérale et Islamique des)
Congo (People's Republic of the)	99	Congo (République Populaire du)
Costa Rica	23	Costa Rica
Cuba	24	Cuba
Cyprus (Republic of)	99	Chypre (République de)
Czechoslovak Socialist Republic	25	Tchécoslovaque (République Socialiste)
Democratic Kampuchea	99	Kampuchea Démocratique
Democratic People's Republic of Korea	50	République Populaire Démocratique de Corée
Denmark	26	Danemark
Djibouti (Republic of)	99	Djibouti (République de)
Dominican Republic	27	Dominicaine (République)
Ecuador	28	Equateur
Egypt (Arab Republic of)	29	Egypte (République Arabe d')
El Salvador (Republic of)	20	El Salvador (République de)
Equatorial Guinea (Republic of)	99	Guinée équatoriale (République de la)
Ethiopia	31	Ethiopie
Fiji	99	Fidji
Finland	32	Finlande
France	33	France
Gabon Republic	99	Gabonaise (République)
Gambia (Republic of the)	99	Gambie (République de)
German Democratic Republic	99	République Démocratique Allemande
Germany (Federal Republic of)	34	Allemagne (République fédérale d')

<u>COUNTRY</u>	<u>CODE</u>	<u>PAYS</u>
Ghana	99	Ghana
Greece	35	Grèce
Guatemala (Republic of)	36	Guatemala (République du)
Guinea (People's Revolutionary Republic of)	99	Guinée (République Populaire et Révolutionnaire de)
Guinea-Bissau (Republic of)	99	Guinée-Bissau (République de)
Guyana	99	Guyane
Haiti (Republic of)	37	Haïti (République d')
Honduras (Republic of)	38	Honduras (République de)
Hungarian People's Republic	39	Hongroise (République Populaire)
Iceland	40	Islande
India (Republic of)	41	Inde (République de l')
Indonesia (Republic of)	42	Indonésie (République d')
Iran (Islamic Republic of)	43	Iran (République Islamique d')
Iraq (Republic of)	44	Iraq (République d')
Ireland	45	Irlande
Israel (State of)	46	Israël (Etat d')
Italy	47	Italie
Ivory Coast (Republic of the)	99	Côte d'Ivoire (République de)
Jamaica	99	Jamaïque
Japan	48	Japon
Jordan (Hashemite Kingdom of)	49	Jordanie (Royaume Hachémite de)
Kenya (Republic of)	99	Kenya (République du)
Korea (Republic of)	50	Corée (République de)
Kuwait (State of)	99	Koweït (Etat de)
Lao People's Democratic Republic	51	Lao (République Démocratique Populaire)
Lebanon	52	Liban
Lesotho (Kingdom of)	99	Lesotho (Royaume de)
Liberia (Republic of)	53	Libéria (République du)
Libya (Socialist People's Libyan Arab Jamahiriya)	54	Libye (Jamahiriya Arabe Libyenne Populaire Socialiste)
Liechtenstein (Principality of)	99	Liechtenstein (Principauté de)
Luxembourg	55	Luxembourg
Madagascar (Democratic Republic of)	99	Madagascar (République Démocratique de)
Malawi	99	Malawi
Malaysia	56	Malaisie
Maldives (Republic of)	99	Maldives (République des)
Mali (Republic of)	99	Mali (République du)
Malta (Republic of)	99	Malte (République de)
Mauritania (Islamic Republic of)	99	Mauritanie (République Islamique de)
Mauritius	99	Maurice
Mexico	57	Mexique
Monaco	58	Monaco
Mongolian People's Republic	99	Mongolie (République Populaire de)
Morocco (Kingdom of)	59	Maroc (Royaume du)
Mozambique (People's Republic of)	99	Mozambique (République Populaire du)
Nauru (Republic of)	99	Nauru (République de)
Nepal	99	Népal
Netherlands (Kingdom of the)	60	Pays-Bas (Royaume des)
New Zealand	61	Nouvelle-Zélande
Nicaragua	62	Nicaragua
Niger (Republic of the)	99	Niger (République du)
Nigeria (Federal Republic of)	99	Nigeria (République Fédérale de)
Norway	63	Norvège
Oman (Sultanate of)	99	Oman (Sultanat d')
Pakistan (Islamic Republic of)	64	Pakistan (République Islamique du)

<u>COUNTRY</u>	<u>CODE</u>	<u>PAYS</u>
Panama (Republic of)	65	Panama (République de)
Papua New Guinea	99	Papua-Nouvelle-Guinée
Paraguay (Republic of)	66	Paraguay (République du)
Peru	67	Pérou
Philippines (Republic of the)	68	Philippines (République des)
Poland (People's Republic of)	69	Pologne (République Populaire de)
Portugal	70	Portugal
Qatar (State of)	99	Qatar (Etat du)
Roumania (Socialist Republic of)	73	Roumanie (République Socialiste de)
Rwanda (Republic of)	99	Rwandaise (République)
San Marino (Republic of)	99	Saint-Marin (République de)
Sao Tome and Principe (Democratic Republic of)	99	Sao Tomé-et-Principe (République Démocratique de)
Saudi Arabia (Kingdom of)	74	Arabie Saoudite (Royaume de l')
Senegal (Republic of the)	99	Sénégal (République du)
Sierra Leone	99	Sierra Leone
Singapore (Republic of)	99	Singapour (République de)
Somali Democratic Republic	75	Somalie (République Démocratique)
Spain	76	Espagne
Sri Lanka (Democratic Socialist Republic of)	99	Sri Lanka (République Socialiste Démocratique de)
Sudan (Democratic Republic of the)	77	Soudan (République Démocratique du)
Suriname (Republic of)	99	Suriname (République du)
Swaziland (Kingdom of)	99	Swaziland (Royaume du)
Sweden	79	Suède
Switzerland (Confederation of)	80	Suisse (Confédération)
Syrian Arab Republic	81	République Arabe Syrienne
Tanzania (United Republic of)	99	Tanzanie (République Unie de)
Thailand	82	Thaïlande
Togolese Republic	99	Togolaise (République)
Tonga (Kingdom of)	99	Tonga (Royaume des)
Trinidad and Tobago	99	Trinité et Tobago
Tunisia	99	Tunisie
Turkey	83	Turquie
Uganda (Republic of)	99	Ouganda (République de l')
Ukrainian Soviet Socialist Republic	84	République Socialiste Soviétique d'Ukraine
Union of Soviet Socialist Republics	86	Union des Républiques Socialistes Soviétiques
United Arab Emirates	99	Emirats Arabes Unis
United Kingdom of Great Britain and Northern Ireland	88	Royaume-Uni de Grande-Bretagne et d'Irlande du Nord
United States of America	89	Etats-Unis d'Amérique
Upper Volta (Republic of)	99	Haute-Volta (République de)
Uruguay (Oriental Republic of)	87	Uruguay (République Orientale de l')
Vatican City State	91	Cité du Vatican (Etat de la)
Venezuela (Republic of)	92	Venezuela (République de)
Viet Nam (Socialist Republic of)	93	Viet Nam (République Socialiste du)
Yemen Arab Republic	99	Yémen (République Arabe du)
Yemen (People's Democratic Republic of)	94	Yémen (République Démocratique Populaire du)
Yugoslavia (Socialist Federal Republic of)	95	Yougoslavie (République Socialiste Fédérative de)
Zaire (Republic of)	99	Zaïre (République du)
Zambia (Republic of)	99	Zambie (République de)
Others	99	L'autres