



Morse code signals¹

1.1 The following are the written characters that may be used and the corresponding Morse code signals:

1.1.1 Letters

a	.-	i	..	r	.-.
b	-...	j	.-..	s	...
c	-.-.	k	-.-	t	-
d	-..	l	.-..	u	..-
e	.	m	--	v	...-
é	..-..	n	-.	w	.--
f	..-.	o	---	x	-..-
g	--.	p	.-..	y	-.-
h	q	--.-	z	--..

1.1.2 Figures

1	.----	6	-.....
2	..---	7	---...
3	...---	8	----..
4-	9	-----.
5	0	-----

1.1.3 Punctuation marks and miscellaneous signs

Full stop (period).....	[.]	.-.-.-
Comma.....	[,]	---..-
Colon or division sign.....	[:]	---...
Question mark (note of interrogation or request for repetition of a transmission not understood).....	[?]	..-..
Apostrophe.....	[']	.-...-
Hyphen or dash or subtraction sign.....	[-]	-...-
Fraction bar or division sign.....	[/]	.-.-.
Left-hand bracket (parenthesis).....	[(]	-.--.
Right-hand bracket (parenthesis).....	[)]	-.--.-

¹ From Recommendation ITU-T F.1 Division B.



Inverted commas (quotation marks)(before and after the words).....	[“”]	.-.-.
Double hyphen.....	[=]	-.-
Understood.....		...-
Error (eight dots).....	
Email (at) Sign	[@]	---.-.
Cross or addition sign.....	[+]	.-.-.
Invitation to transmit.....		-.-
Wait-...
End of work.....		...-.-
Starting signal (to precede every transmission).....		-.-.-
Multiplication sign.....	[x]	-.-



Phonetic alphabet code²

Letter to be transmitted	Code word to be used	Spoken as
A	Alfa	<u>AL</u> FAH
B	Bravo	<u>BRAH</u> VOH
C	Charlie	<u>CHAR</u> LEE or <u>SHAR</u> LEE
D	Delta	<u>DELL</u> TAH
E	Echo	<u>ECK</u> OH
F	Foxtrot	<u>FOKS</u> TROT
G	Golf	GOLF
H	Hotel	HOH <u>TELL</u>
I	India	<u>IN</u> DEE AH
J	Juliett	<u>JEW</u> LEE <u>ETT</u>
K	Kilo	<u>KEY</u> LOH
L	Lima	<u>LEE</u> MAH
M	Mike	MIKE
N	November	NO <u>VEM</u> BER
O	Oscar	<u>OSS</u> CAH
P	Papa	PAH <u>PAH</u>
Q	Quebec	KEH <u>BECK</u>
R	Romeo	<u>ROW</u> ME OH
S	Sierra	SEE <u>AIR</u> RAH
T	Tango	<u>TANG</u> GO
U	Uniform	<u>YOU</u> NEE FORM or <u>OO</u> NEE FORM
V	Victor	<u>VIK</u> TAH
W	Whiskey	<u>WISS</u> KEY
X	X-ray	<u>ECKS</u> <u>RAY</u>
Y	Yankee	<u>YANG</u> KEY
Z	Zulu	<u>ZOO</u> LOO

² From Radio Regulations Appendix S14.



Figure code

Figure or mark to be transmitted	Spoken as ³ (ICAO)	Code word (Appendix S14)	Spoken as (Appendix S14)
0	ZE-RO	Nadazero	NAH-DAH-ZAY-ROH
1	WUN	Unaone	OO-NAH-WUN
2	TOO	Bissotwo	BEEES-SOH-TOO
3	TREE	Terrathree	TAY-RAH-TREE
4	FOW er	Kartefour	KAR-TAY-FOWER
5	FIFE	Pantafive	PAN-TAH-FIVE
6	SIX	Soxisix	SOK-SEE-SIX
7	SEV en	Setteseven	SAY-TAY-SEVEN
8	AIT	Oktoeight	OK-TOH-AIT
9	NIN er	Novenine	NO-VAY-NINER
Decimal point	DAY SEE MAL	Decimal	DAY-SEE-MAL
Hundred	HUN dred		
Thousand	TOU SAND		

³ From ICAO Radiotelephony Procedures.



Q Code⁴

Certain Q code abbreviations may be given an affirmative or negative sense by sending, immediately following the abbreviation, the letter C or the letters NO (in radiotelephony spoken as: CHARLIE or NO).

The meanings assigned to Q code abbreviations may be amplified or completed by the addition of other appropriate groups, call signs, place names, figures, numbers, etc. It is optional to fill in the blanks shown in parentheses. Any data which are filled in where blanks appear shall be sent in the same order as shown in the text of the following tables.

Q code abbreviations are given the form of a question when followed by a question mark in radiotelegraphy and RQ (ROMEIO QUEBEC) in radiotelephony. When an abbreviation is used as a question and is followed by additional or complementary information, the question mark (or RQ) should follow this information.

All times shall be given in Coordinated Universal Time (UTC) unless otherwise indicated in the question or reply.

Abbreviation	Question	Answer or Advice
QRA	What is the name of your vessel (or station)?	The name of my vessel (or station) is ...
QRB	How far approximately are you from my station?	The approximate distance between our stations is ... nautical miles (or kilometres).
QRG	Will you tell me my exact frequency (or that of ...)?	Your exact frequency (or that of ...) is ... kHz (or MHz).
QRH	Does my frequency vary?	Your frequency varies.
QRI	How is the tone of my transmission?	The tone of your transmission is ... 1. good 2. variable 3. bad.
QRK	What is the intelligibility of my signals (or those of ... (name and/or call sign))?	The intelligibility of your signals (or those of ... (name and/or call sign)) is ... 1. bad 2. poor 3. fair 4. good 5. excellent.

⁴ From Recommendation ITU-R M.1172, *Miscellaneous abbreviations and signals to be used for radiocommunications in the maritime mobile service*, Radio Regulations (1998).



Abbreviation	Question	Answer or Advice
QRL	Are you busy?	I am busy (<i>or</i> I am busy with ... (<i>name and/or call sign</i>)). Please do not interfere.
QRM	Is my transmission being interfered with?	Your transmission is being interfered with ... 1. nil 2. slightly 3. moderately 4. severely 5. extremely.
QRZ	Who is calling me?	You are being called by ... (on ... kHz(<i>or</i> MHz)).
QSA	What is the strength of my signals (<i>or</i> those of ... (<i>name and/or call sign</i>))?	The strength of your signals (<i>or</i> those of ... (<i>name and/or call sign</i>)) is ... 1. scarcely perceptible 2. weak 3. fairly good 4. good 5. very good.
QSB	Are my signals fading?	Your signals are fading.
QSO	Can you communicate with ... (<i>name and/or call sign</i>) direct (<i>or</i> by relay)?	I can communicate with ... (<i>name and/or call sign</i>) direct (<i>or</i> by relay through ...).
QSP	Will you relay to ... (<i>name and/or call sign</i>) free of charge?	I will relay to ... (<i>name of and/or call sign</i>) free of charge.
QSV	Shall I send a series of Vs (<i>or</i> signs) for adjustment on this frequency (<i>or</i> on ... kHz (<i>or</i> MHz))?	Send a series of Vs (<i>or</i> signs) for adjustment on this frequency (<i>or</i> on ... kHz (<i>or</i> MHz)).
QSW	Will you send on this frequency (<i>or</i> on ... kHz (<i>or</i> MHz)) (with emissions of class ...)?	I am going to send on this frequency (<i>or</i> on ... kHz (<i>or</i> MHz)) (with emissions of class ...).
QSX	Will you listen to ... (<i>name and/or call sign(s)</i>) on ... kHz (<i>or</i> MHz), or in the bands .../channels ...?	I am listening to ... (<i>name and/or call sign(s)</i>) on ... kHz (<i>or</i> MHz), or in the bands .../channels ...
QSY	Shall I change to transmission on another frequency?	Change to transmission on another frequency (<i>or</i> on ... kHz (<i>or</i> MHz)).
QSZ	Shall I send each word or group more than once?	Send each word or group twice (<i>or</i> ... times).



Abbreviation	Question	Answer or Advice
QTA	Shall I cancel telegram (<i>or</i> message) number ...?	Cancel telegram (<i>or</i> message) number ...
QTC	How many telegrams have you to send?	I have ... telegrams for you (<i>or</i> for ... (<i>name and/or call signs</i>)).
QTH	What is your position in latitude and longitude (<i>or according to any other indication</i>)?	My position is ... latitude, ... longitude (<i>or according to any other indication</i>).
QTR	What is the correct time?	The correct time is ... hours.



Procedure words⁵

Signal strength and readability

Signal strength	
Spoken	Meaning
LOUD	Your signal is strong.
GOOD	Your signal is good.
WEAK	I can hear you but with difficulty.
VERY WEAK	I can hear you but with great difficulty
NOTHING HEARD	I cannot hear you at all.

Readability	
Spoken	Meaning
CLEAR	Excellent quality.
READABLE	Good quality, no difficulty in reading you.
DISTORTED	I have problems reading you.
WITH INTERFERENCE	I have problems reading you due to interference.
NOT READABLE	I can hear that you are transmitting but cannot read you at all.

Procedure word	Meaning
ACKNOWLEDGE	Confirm that you have received my message and will comply (WILCO)
AFFIRMATIVE	Yes/Correct
ALL AFTER	Everything that you transmitted after ...
ALL BEFORE	Everything that you transmitted before ...
BREAK	Indicates separation of text from rest of message.
BREAK BREAK	I wish to interrupt an ongoing exchange of transmissions in order to pass an urgent message.
CALL SIGN	The group that follows is a call sign.
CANCEL	Annul the previously transmitted message.
CORRECT	You are correct or what you have transmitted is correct.
CORRECTION	An error has been made in this transmission (or message indicated). The correct version is ...
DISREGARD	Consider that transmission as not sent.

⁵ Adapted from UNHCR Procedure for Radio Communication and supplemental sources.



Procedure word	Meaning
DO NOT ANSWER – OUT	Station(s) called are not to answer this call, acknowledge this message, or to transmit in connection with this transmission
FIGURES	Numerals or numbers will follow.
HOW DO YOU READ?	What is the readability of my signal?
I SAY AGAIN	I repeat for clarity or emphasis.
MESSAGE FOLLOWS	I have a formal message which should be recorded (e.g.) written down
MONITOR	Listen out on ... (frequency).
NEGATIVE	No/Incorrect
OVER	This is the end of this transmission and a response is necessary.
OUT	This is the end of my transmission. No answer is required or expected. (OVER and OUT are never used together.)
READ BACK	Repeat this entire transmission back to me exactly as received.
RELAY (TO)	Transmit the following message to all addressees or to the address immediately following ...
REPORT	Pass me the following information ...
ROGER	I have received your last transmission. (Not an answer to a question.)
SAY AGAIN	Repeat your last transmission or repeat the portion indicated by “ALL AFTER”.
SILENCE	Cease all transmission immediately. Maintain until lifted.
SILENCE LIFTED	Transmissions may resume after SILENCE has been previously ordered.
SPEAK SLOWER	Your transmissions are too fast. Reduce speed.
UNKNOWN STATION	The identity of the station heard is unknown.
VERIFY	Verify the entire message (or portion indicated) with the originator and send corrected version. To be used only when the addressee has serious questions about the validity of the message.
WAIT	Wait for a few seconds.
WAIT OUT	Wait for a longer period. I will re-establish contact when I return on the air.
WILCO	I have received your message and will comply. (ROGER is implied but not stated.)
WORD AFTER	The word of the message to which I refer is that which follows ...
WORD BEFORE	The word of the message to which I refer is that which precedes ...
WORDS TWICE	Communication is difficult. Transmit each word or phrase twice.
WRONG	The last transmission was incorrect. The correct version is ...