

DIVISION B

OPERATIONAL PROVISIONS APPLYING TO MORSE AND SOUNDER WORKING

I. Morse code

1 Morse code signals

B1 1.1 The following are the written characters that may be used and the corresponding Morse code signals:

B2 1.1.1 *Letters*

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

B3 1.1.2 *Figures*

1	· — — — —	6	— · · · ·
2	·· — — —	7	— — · · ·
3	·· · — —	8	— — — · ·
4	·· · · —	9	— — — — ·
5	·· · · ·	0	— — — — —

B4 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)	[)]	— · — — —
Inverted commas (quotation marks) (before and after the words)	[“ ”]	· — · · — ·
Double hyphen	[=]	— · · —
Understood		·· · — ·
Error (eight dots)		·· · · · · ·
Cross or addition sign	[+]	· — · — ·
Invitation to transmit		— · —
Wait		· — · · ·
End of work		·· · — —
Starting signal (to precede every transmission)		— · — — —
Multiplication sign	[×]	— · · —

2 Spacing and length of the signals

- B5 2.1 A dash is equal to three dots.
- B6 2.2 The space between the signals forming the same letter is equal to one dot.
- B7 2.3 The space between two letters is equal to three dots.
- B8 2.4 The space between two words is equal to seven dots.
- B9 2.5 On the Wheatstone instrument, where perforators are used, the space between two letters shall be equal to one *centre hole* perforation and the space between two words shall be equal to three *centre holes*.

3 Transmission of signs for which there is no corresponding signal in the Morse code

- B10 3.1 Signs that have no corresponding signal in the Morse code, but that are acceptable in the writing of telegrams, shall be sent as follows:
- 3.2 *Multiplication sign*
- B11 3.2.1 For the multiplication sign, the signal corresponding to the letter X shall be transmitted.
- 3.3 *Percentage or per thousand sign*
- B12 3.3.1 To indicate the signal % or ‰, the figure **0**, the fraction bar and the figures **0** or **00** shall be transmitted successively (i.e. **0/0**, **0/00**).
- B13 3.3.2 A whole number, a fractional number, or a fraction, followed by a % or ‰ sign, shall be transmitted by joining up the whole number, the fraction number, or the fraction to the % or ‰ by a single hyphen.

Examples: For 2%, transmit **2-0/0** and not **20/0**

For 4 ½ ‰, transmit **4-1/2-0/00** and not **41/20/00**

3.4 *Inverted commas (quotation marks)*

- B14 3.4.1 The special signal for inverted commas shall be transmitted before and after the word or words. However, where code converters are used, the apostrophe may be transmitted twice before and twice after the word or words to signal inverted commas (quotation marks).

3.5 *Minute and second signs*

- B15 3.5.1 To transmit the minute (′) or second (″) signs, when such signs follow figures – for example 1′ 15″ – the apostrophe signal (· – – – ·) must be used once or twice as appropriate. The signal (· – · – ·) reserved for inverted commas may not be used for the second sign.

4 Transmission of groups of figures and letters, of ordinal numbers or of fractions

- B16 4.1 A group consisting of figures and letters shall be transmitted without spaces between figures and letters.
- B17 4.2 Ordinal numbers composed of figures and letters, 30me, 25th, etc., shall be transmitted in the form **30ME, 25TH**, etc.
- B18 4.3 A number that includes a fraction shall be transmitted with the fraction linked to the whole number by a single hyphen.

Example: For $1\frac{3}{4}$, transmit **1-3/4** and not **13/4**
For $\frac{3}{4} 8$, transmit **3/4-8** and not **3/48**
For $363\frac{1}{2} 4 5642$, transmit **363-1/2 4 5642** and not **3631/2 4 5642**.

II. General transmission rules

- B19 **1** All correspondence between two offices shall begin with the call signal.
- B20 1.1 For calling, the calling office shall transmit the call sign (not more than twice) of the office required, the word **DE** followed by its own call sign, the appropriate service abbreviation to indicate a priority telegram, an indication of the reason for the call and the signal – • – unless there are special rules peculiar to the type of apparatus used. The call shall always be made at hand speed.
- B21 **2** The office called must reply immediately by transmitting the call sign of the calling station, the word **DE** followed by its own call sign and the signal – • –
- B22 2.1 If the office called is unable to receive, it shall give the *wait* signal. If it expects the wait to exceed ten minutes, the reason and probable duration shall be given.
- B23 2.2 When an office called does not reply, the call may be repeated at suitable intervals.
- B24 2.3 When the office called does not reply to the repeated call, the condition of the circuit must be examined.
- B25 **3** The double hyphen (– • • • –) shall be transmitted either to separate:
- B26 3.1 the preamble from the service indications;
- B27 3.2 the service indications from each other;
- B28 3.3 the service indications from the address;
- B29 3.4 the office of destination from the text;
- B30 3.5 the text from the signature.

- B31 **4** A transmission, once begun, may not be interrupted to give place to a communication of higher priority except in a case of absolute urgency.
- B32 **5** Every telegram shall be terminated with a cross signal (· – · – ·).
- B33 **6** The end of the transmission shall be indicated by the cross signal (· – · – ·) followed by the *invitation to transmit* signal **K** (– · –).
- B34 **7** The end of work shall be indicated by the office that transmitted the last telegram. The correct indication is the *end of work* signal (· · · – · –).

III. Transmission of telegrams with identical text

1 Identical texts

- B35 1.1 When an office has to transmit to the same office more than five telegrams having identical texts and comprising more than 50 actual words, it may transmit the text once only. In that case, the text shall be transmitted in the first telegram only, and the text of all the telegrams with identical text that follow shall be replaced by the words **TEXT NR . . .** (number of first telegram).
- B36 1.2 This procedure necessitates the transmission in succession of all telegrams with identical text.
- B37 1.3 The receiving office must be informed of the transmission of telegrams with identical text by a service note on the following lines:

. . . TELEGRAMS WITH IDENTICAL TEXT FOLLOW

- B38 1.4 When reception is possible by means of perforated tape, the receiving office should be informed in ample time to allow it to receive telegrams with identical text by tape.

IV. Transmission irregularities – Service notes

- B39 **1** To indicate *wait*, the corresponding signal (· – · · ·) shall be transmitted.
- B40 **2** If the sending operator becomes aware of an error, he shall stop, give the error signal (· · · · · · · · · ·), repeat the last word correctly transmitted, and continue the transmission.
- B41 **3** If it is necessary to interrupt the transmission for any reason, the procedure shall be as follows until transmission stops.
- B42 3.1 Morse simplex, transmit a series of dots.
- B43 3.2 Morse duplex, transmit the letters **BK**.
- B44 3.3 Once transmission has been stopped, the receiving operator shall repeat the last word correctly received followed by a question mark. The sending operator shall resume transmission from that word.
- B45 3.4 If a repetition is asked for after a long interruption, the telegram and the part of the telegram in question must be precisely indicated.
- B46 **4** Service notes **XQ** can be interposed between telegrams of a series.