Status: *Point in time view as at 31/01/2020.*
Changes to legislation: *There are currently no known outstanding effects for the Commission Decision of 19 March 2010 on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2010) 1644) (Text with EEA relevance) (2010/166/EU), ANNEX. (See end of Document for details)*

[F1ANNEX

Conditions to be met by a system providing MCV services in the territorial seas of the Member States of the European Union, in order to avoid harmful interference to land-based mobile networks

Textual Amendments

F1 Substituted by Commission Implementing Decision (EU) 2017/191 of 1 February 2017 amending Decision 2010/166/EU, in order to introduce new technologies and frequency bands for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2017) 450) (Text with EEA relevance).

(1) Conditions to be met by GSM systems operating in the 900 MHz band and 1 800 MHz band providing MCV services in the territorial seas of the Member States, in order to avoid harmful interference to land-based mobile networks

The following conditions shall apply:

(a) the system providing MCV services shall not be used closer than 2 nautical miles[(1)] from the baseline, as defined in the United Nations Convention on the Law of the Sea;

(b) only indoor vessel-BS antenna(s) shall be used between 2 and 12 nautical miles from the baseline;

(c) limits to be set for mobile terminals when used on board vessel and for vessel-BS:

Parameter	Description
Transmit power/power density	For mobile terminals used on board vessels and controlled by the vessel-BS in the 900 MHz band, maximum radiated output power: 5 dBm
	For mobile terminals used on board vessels and controlled by the vessel-BS in the 1 800 MHz band, maximum radiated output power: 0 dBm
	For base stations on board vessels, the maximum power density measured in external areas of the vessel, with reference to a 0 dBi measurement antenna gain: – 80 dBm/200 kHz
Channel access and occupation rules	Techniques to mitigate interference that provide at least equivalent performance

a	ACCMIN (RX_LEV_ACCESS_MIN); as described in GSM standard ETSI TS 144 018.
b	RXLEV (RXLEV-FULL-SERVING-CELL); as described in GSM standard ETSI TS 148 008.
c	Discontinuous transmission, or DTX; as described in GSM standard ETSI TS 148 008.
d	Timing advance; as described in GSM standard ETSI TS 144 018.

Status: *Point in time view as at 31/01/2020.*
Changes to legislation: *There are currently no known outstanding effects for the Commission Decision of 19 March 2010 on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2010) 1644) (Text with EEA relevance) (2010/166/EU), ANNEX. (See end of Document for details)*

	to the following mitigation factors based on GSM standards shall be used: — between 2 and 3 nautical miles from the baseline, the receiver sensitivity and the disconnection threshold (ACCMIN[a] and min RXLEV[b] level) of the mobile terminal used on board vessel shall be equal to or higher than – 70 dBm/200 kHz and between 3 and 12 nautical miles from the baseline equal to or higher than – 75 dBm/200 kHz, — discontinuous transmission[c] shall be activated in the MCV system uplink direction, — the timing advance[d] value of the vessel-BS shall be set to the minimum.

a	ACCMIN (RX_LEV_ACCESS_MIN); as described in GSM standard ETSI TS 144 018.
b	RXLEV (RXLEV-FULL-SERVING-CELL); as described in GSM standard ETSI TS 148 008.
c	Discontinuous transmission, or DTX; as described in GSM standard ETSI TS 148 008.
d	Timing advance; as described in GSM standard ETSI TS 144 018.

(2) Conditions to be met by UMTS systems in the 1 900/2 100 MHz bands providing MCV services in the territorial seas of the Member States, in order to avoid harmful interference to land-based mobile networks

The following conditions shall apply:

(a) the system providing MCV services shall not be used closer than 2 nautical miles from the baseline, as defined in the United Nations Convention on the Law of the Sea;

(b) only indoor vessel-BS antenna(s) shall be used between 2 and 12 nautical miles from the baseline;

(c) only bandwidth up to 5 MHz (duplex) can be used;

(d) limits to be set for mobile terminals when used on board vessel and for vessel-BS:

Parameter	**Description**
Transmit power/power density	For mobile terminals transmitting in the 1 900 MHz band used on board vessels and controlled by the vessel-BS transmitting in the 2 100 MHz band, maximum radiated output power: 0 dBm/5 MHz
Emissions on deck	The vessel-BS emission on deck shall be equal or below – 102 dBm/5 MHz (Common Pilot Channel)

Status: *Point in time view as at 31/01/2020.*
Changes to legislation: *There are currently no known outstanding effects for the Commission Decision of 19 March 2010 on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2010) 1644) (Text with EEA relevance) (2010/166/EU), ANNEX. (See end of Document for details)*

Channel access and occupation rules	Between 2 and 12 nautical miles from the baseline, the quality criteria (minimum required received signal level in the cell) shall be equal to or higher than: – 87 dBm/5 MHz
	The Public Land Mobile Network selection timer shall be set to 10 minutes
	The timing advance parameter shall be set according to a cell range for the MCV distributed antenna system equal to 600 m
	The Radio Resource Control user inactivity release timer shall be set to 2 seconds
Non alignment with land networks	MCV carrier centre frequency shall not be aligned with land network carriers

(3) Conditions to be met by LTE systems in the 1 800 MHz band and 2 600 MHz band providing MCV services in the territorial seas of the Member States, in order to avoid harmful interference to land-based mobile networks

The following conditions shall apply:

(a) the system providing MCV services shall not be used closer than 4 nautical miles from the baseline, as defined in the United Nations Convention on the Law of the Sea;

(b) only indoor vessel-BS antenna(s) shall be used between 4 and 12 nautical miles from the baseline;

(c) only a bandwidth of up to 5 MHz (duplex) can be used per frequency band (1 800 MHz and 2 600 MHz);

(d) limits to be set for mobile terminals when used on board vessel and for vessel-BS:

Parameter	**Description**
Transmit power/power density	For mobile terminals used on board vessels and controlled by the vessel-BS in the 1 800 MHz band and 2 600 MHz band, maximum radiated output power: 0 dBm
Emissions on deck	The vessel-BS emission on deck shall be equal or below – 98 dBm/5 MHz (equivalent to – 120 dBm/15 kHz)
Channel access and occupation rules	Between 4 and 12 nautical miles from the baseline, the quality criteria (minimum required received signal level in the cell) shall be equal to or higher than – 83 dBm/5 MHz (equivalent to – 105 dBm/15 kHz)

Status: *Point in time view as at 31/01/2020.*
Changes to legislation: *There are currently no known outstanding effects for the Commission Decision of 19 March 2010 on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2010) 1644) (Text with EEA relevance) (2010/166/EU), ANNEX. (See end of Document for details)*

	The Public Land Mobile Network selection timer shall be set to 10 minutes
	The timing advance parameter shall be set according to a cell range for the MCV distributed antenna system equal to 400 m
	The Radio Resource Control user inactivity release timer shall be set to 2 seconds
Non alignment with land networks	MCV carrier centre frequency shall not be aligned with land network carriers**]**

Status: *Point in time view as at 31/01/2020.*
Changes to legislation: *There are currently no known outstanding effects for the Commission Decision of 19 March 2010 on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2010) 1644) (Text with EEA relevance) (2010/166/EU), ANNEX. (See end of Document for details)*

(1) **[**[F1]One nautical mile = 1 852 metres**]**

Textual Amendments

F1 Substituted by Commission Implementing Decision (EU) 2017/191 of 1 February 2017 amending Decision 2010/166/EU, in order to introduce new technologies and frequency bands for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2017) 450) (Text with EEA relevance).

Status:
Point in time view as at 31/01/2020.

Changes to legislation:
There are currently no known outstanding effects for the Commission Decision of 19 March 2010 on harmonised conditions of use of radio spectrum for mobile communication services on board vessels (MCV services) in the European Union (notified under document C(2010) 1644) (Text with EEA relevance) (2010/166/EU), ANNEX.