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COMMISSION IMPLEMENTING DECISION (EU) 2017/224

of 8 February 2017

setting out the technical and operational specifications allowing the commercial service offered by the system established under the Galileo programme to fulfil the function referred to in Article 2(4)(c) of Regulation (EU) No 1285/2013 of the European Parliament and of the Council

(OJ L 34, 9.2.2017, p. 36)

Amended by:

		Official Journal		
		No	page	date
►**M1**	Commission Implementing Decision (EU) 2018/321 of 2 March 2018	L 62	34	5.3.2018
►**M2**	Commission Implementing Decision (EU) 2024/1882 of 10 July 2024	L 1882	1	11.7.2024

Corrected by:

►**C1** Corrigendum, OJ L 155, 19.6.2018, p. 35 (2017/224)
►**C2** Corrigendum, OJ L 155, 19.6.2018, p. 35 (2018/321)

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COMMISSION IMPLEMENTING DECISION (EU) 2017/224

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setting out the technical and operational specifications allowing the commercial service offered by the system established under the Galileo programme to fulfil the function referred to in Article 2(4)(c) of Regulation (EU) No 1285/2013 of the European Parliament and of the Council

Article 1

The technical and operational specifications allowing the commercial service offered by the system under the Galileo programme to fulfil the function referred to in Article 2(4)(c) of Regulation (EU) No 1285/2013 are set out in the Annex.

Article 2

This Decision shall enter into force on the twentieth day following its publication in the *Official Journal of the European Union*.

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ANNEX

Technical and operational specifications allowing the commercial service offered by the system established under the Galileo programme to fulfil the function referred to in Article 2(4)(c) of Regulation (EU) No 1285/2013

The commercial service (hereinafter 'CS') offers two major improvements compared to the open service (hereinafter 'OS'), namely higher ►C1 accuracy ◄ in terms of geolocation (hereinafter 'CS high ►C1 accuracy ◄') and reinforced authentication capacity (hereinafter 'CS authentication'), which can be offered to users independently of each other. The corresponding technical and operational specifications are set out in the table below:

	CS high ►C1 accuracy ◄	CS authentication	
		Specifications common to the OS and the CS: authentication of geolocation information	Specifications specific to the CS: authentication using encrypted codes
General specifications	►M1 Supply of high ►C2 accuracy ◄ data in order to obtain a positioning error of less than two decimetres in nominal conditions of use ◄	Supply of authentication data for geolocation information from the OS, contained in the signals	Authentication of the signals through access to encrypted codes contained in the signals
Components of the signals used	E6, E6-B component for the supply of high ►C1 accuracy ◄ data	E1, E1-B component for authentication data from the geolocation information	►M2 E6, E6-C component encrypted (pilot) ◄
Specifications of the user segment	High ►C1 accuracy ◄ positioning obtained using precise positioning algorithms integrated into the receiver and using the data transmitted in the signals	Verification of the authenticity of the data using an asymmetrical cryptography protocol transmitted in the signals and a public cryptographic key	►M2 Verification of the authenticity of the signals by decrypting E6 codes re-encrypted with an OS data authentication key ◄
Geographical coverage	Global	Global	Global
System architecture	High-►C1 accuracy ◄ data provided by one or more service providers, transmitted to users via the GNSS Service Centre (GSC), the ground segment and the satellites connected to the ground segment	Authentication data inserted into the available capacity of the EDBS field of the E1-B signal component, and disseminated by the satellites connected to the ground segment	►M2 Encryption of the E6 signal codes by the Galileo satellites, transmission of the private keys generated by the ground segment to the GNSS Service Centre (GSC), and publication of re-encrypted portions of the E6 signal codes with a future OS data authentication key ◄
Provision of the service	High ►C1 accuracy ◄ data provided by one or more service providers	Authentication data provided by the system established under the Galileo programme	Encrypted signals supplied by the system operating manager

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	CS high ►C1 accuracy ◄	CS authentication	
		Specifications common to the OS and the CS: authentication of geolocation information	Specifications specific to the CS: authentication using encrypted codes
Access to the service	►M1 — Free access ◄	►M2 Free access ◄	
Deployment of the service	— Testing and validation phase to be concluded in 2018 ►M1 — Initial signals supply phase between 2018 and 2020 — Full service supply phase from 2020 ◄	— Testing and validation phase to be concluded in 2018 — Initial signals supply phase between 2018 and 2020 — Full service supply phase from 2020	►M2 — Initial signals supply phase by 2024, — Service supply phase from 2026 ◄
Use of EU classified information	— No use of EUCI by the Commercial Service Provider or the end user. However, if such authorisation is required it is decided in accordance with the rules on security set out in Article 17(a) of Regulation (EU) No 1285/2013.	— No use of EUCI by the Commercial Service Provider or the end user. However, if such authorisation is required it is decided in accordance with the rules on security set out in Article 17(a) of Regulation (EU) No 1285/2013.	►M2 No use of EUCI by the end user ◄
Further specifications	— High-►C1 accuracy ◄ data provided for the Galileo satellites and possibly for the satellites of other constellations	— The transmission of authentication data must not lead to any deterioration in the open service — The authentication data must be provided for the Galileo satellites and possibly for the satellites of other constellations — The users of the OS accept the risks linked to the use of authentication data	n/a

Acronyms

E1-B Data channel for the signal in frequency E1 of the Galileo system, on 1 575,45 MHz

E6 Frequency E6 of the Galileo system, on 1 278,75 MHz

E6-B Component of the E6 signal, corresponding to the data channel

E6-C Component of the E6 signal, corresponding to the pilot channel

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EDBS	External Data Broadcast Service
GNSS	Global Navigation Satellite System
n/a	Not applicable.
OTAR	Over-The-Air Rekeying