ANNEX II

Draft Annex II to draft Commission Implementing Regulation (EU) …/… amending Implementing Regulation (EU) 2017/373 as regards the requirements for aeronautical data catalogue and aeronautical information publication

ANNEX III to Commission Implementing Regulation (EU) 2017/373 is amended as follows:

1. Table 1. Aerodrome data, in Appendix 1, is replaced by the following:

‘**1. Aerodrome data**

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Aerodrome/ Heliport				A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.						
	Designator			Designator of the aerodrome/ heliport						
		ICAO location indicator	Text	The four-letter ICAO location indicator of the aerodrome/heliport, as listed in ICAO Doc 7910	If any					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				‘Location Indicators’						
		IATA designator	Text	The identifier that is assigned to a location in accordance with IATA rules (Resolution 767)	If any					
		Other	Text	A locally defined airport identifier, if other than an ICAO location indicator						
	Name		Text	The primary official name of an aerodrome as designated by the competent authority						
	Served city		Text	The full name (free text) of the city or town the aerodrome/						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				heliport is serving						
	Type of traffic permitted									
		International/ national	Code list	Indication if international and/or national flights are permitted at the aerodrome/ heliport						
		Instrument flight rules (IFR) / Visual flight rules (VFR)	Code list	Indication if IFR and/or VFR flights are permitted at the aerodrome/ heliport						
		Scheduled/ non-scheduled	Code list	Indication if scheduled and/or non-scheduled flights are permitted at the aerodrome/ heliport						
		Civil/military	Code list	Indication if civil						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				commercial aviation and/or general aviation and/or military flights are permitted at the aerodrome/ heliport						
		Restricted use	Text	Indication if an aerodrome or heliport is not open for the public (only for use by the owners)						
	Heliport type		Text	The type of the heliport (surface level, elevated, shipboard or helideck)						
	Control type		Text	Indication if an aerodrome is under civil control, military control or joint control						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Certified		Text	Indication if an aerodrome is/is not certified in accordance with the ICAO rules or Regulation (EU) No 139/2014						
	Certification date		Date	The date when the airport certification was issued by the competent authority						
	Certification expiration date		Date	The date when the aerodrome certification becomes invalid						
	Field elevation									
		Elevation	Elevation	The vertical distance above mean sea level (MSL) from the highest point of the landing area		0.5 m	Essential	Surveyed	1 m or 1 ft	1 m or 1 ft

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Geoid undulation	Height	The geoid undulation at the aerodrome/ heliport elevation position	Where appropriate	0.5 m	Essential	Surveyed	1 m or 1 ft	1 m or 1 ft
	Reference temperature		Value	The monthly mean of the daily maximum temperatures for the hottest month of the year at an aerodrome; this temperature must be averaged over a period of years.						
	Mean low temperature		Value	The mean lowest temperature of the coldest month of the year, for the last five years of data at the aerodrome elevation		5 degrees				

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Magnetic variation			The angular difference between the true and the magnetic north						
		Angle	Angle	The angle value of the magnetic variation		1 degree	Essential	Surveyed	1 degree	1 degree
		Date	Date	The date on which the magnetic variation had the corresponding value						
		Annual change	Value	The annual rate of change of the magnetic variation						
	Reference point			The designated geographical location of an aerodrome						
		Position	Point	Geographical location of the aerodrome reference point		30 m	Routine	Surveyed/ calculated	1 sec	1 sec

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Site	Text	Location of the reference point on the aerodrome						
		Direction	Text	Direction of the aerodrome reference point from the centre of the city or town which the aerodrome serves						
		Distance	Distance	Distance of the aerodrome reference point from the centre of the city or town which the aerodrome serves						
Landing direction indicator				A device to visually indicate the direction currently designated for landing and for take-off						
	Location		Text	Location of the landing						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				direction indicator						
	Lighting		Text	Lighting of the landing direction indicator	If any					
Secondary power supply										
	Characteristics		Text	Description of the secondary power supply						
	Switch-over time		Value	Secondary power supply switch-over time						
Anemometer				Device used for measuring the wind speed						
	Location		Text	Location of the anemometer						
	Lighting		Text	Lighting of the anemometer	If any					
Aerodrome beacon (ABN) / identification beacon (IBN)				Aerodrome beacon/identification beacon used to indicate the location of an						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				aerodrome from the air						
	Location		Text	Location of the aerodrome beacon/identification beacon	If any					
	Characteristics		Text	Description of the aerodrome beacon/identification beacon						
	Hours of operation		Schedule	Hours of operation of the aerodrome beacon/identification beacon						
Wind direction indicator										
	Location		Text	Location of the wind direction indicator						
	Lighting		Text	Lighting of the wind direction indicator						
Runway visual range (RVR) observation site				The observation site of the RVR						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Position		Point	Geographical location of the RVR observation sites						
Frequency area				The designated part of a surface movement area where a specific frequency is required by ATC or ground control						
	Station		Text	Name of the station providing the service						
	Frequency		Value	Frequency of the station providing the service						
	Boundary		Polygon	Area boundary of the frequency area						
Hot spot				A location on an aerodrome movement						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				area with a history, or potential risk, of collision or RWY incursion, and where heightened attention by pilots/drivers is necessary						
	Identifier		Text	The identifier of the hot spot						
	Annotation		Text	Additional information about the hot spot						
	Geometry		Polygon	Geographical area of the hot spot						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
RWY				A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Designator		Text	The full textual designator of the RWY, used to uniquely identify the RWY at an aerodrome/heliport (e.g. 09/27, 02R/20L, RWY 1)						
	Nominal length		Distance	The declared longitudinal extent of the RWY for operational (performance) calculations		1 m	Critical	Surveyed	1 m or 1 ft	1 m
	Nominal width		Distance	The declared transversal extent of the RWY for operational (performance) calculations		1 m	Essential	Surveyed	1 m or 1 ft	1 m
	Geometry		Polygon	Geometries of the RWY						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				element, RWY displaced area and RWY intersection						
	Centre line points									
		Position	Point	Geographical location of the RWY centre line at each end of the RWY, at the stopway (SWY), and at the origin of each take-off flight path area, as well as at each significant change in the slope of the RWY and SWY	Definition from Annex 4 3.8.4.2	1 m	Critical	Surveyed		
		Elevation	Elevation	The elevation of the correspondi ng centre		0.25 m	Critical	Surveyed		

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				line point. For non-precision approaches, any significant high and low intermediate points along the RWY shall be measured to the accuracy of one-half metre or foot.						
		Geoid undulation	Height	The geoid undulation at the corresponding centre line point						
	RWY exit line									
		Exit guidance line	Line	Geographical location of the RWY exit line		0.5 m	Essential	Surveyed	1/100 sec	1 sec
		Colour	Text	Colour of the RWY exit line						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Style	Text	Style of the RWY exit line						
		Directionality	Code list	Directionality of the RWY exit line (one-way or two-way)						
	Surface type		Text	The surface type of the RWY						
	Strength									
		Pavement classification number (PCN)	Text	PCN						
		Pavement type	Text	Pavement type for the aircraft classification number — pavement classification number (ACN-PCN) determination						
		Subgrade category	Text	Subgrade strength category of the RWY						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Allowable pressure	Text	The maximum allowable tyre pressure category or the maximum allowable tyre pressure value						
		Evaluation method	Text	The evaluation method used						
	Strip			A defined area including the RWY and the SWY, if provided: to reduce the risk of damage to aircraft running off a RWY; and to protect aircraft flying over the RWY						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				during take-off or landing operations						
		Length	Distance	The longitudinal extent of the RWY strip						
		Width	Distance	The transversal extent of the RWY strip						
		Surface type	Text	The surface type of the RWY strip						
	Shoulder			An area adjacent to the edge of a pavement, so prepared as to provide a transition area between the pavement and the adjacent surface						
		Geometry	Polygon	Geographical location of the RWY shoulders						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Surface type	Text	The surface type of the RWY shoulder						
		Width	Distance	The width of the RWY shoulder		1 m	Essential	Surveyed	1 m or 1 ft	
	Blast pad			Specially prepared surface placed adjacent to the end of a RWY to eliminate the erosive effect of the strong wind forces produced by aeroplanes at the beginning of their take-off roll						
		Geometry	Polygon	Geographical location of the blast pad						
	Obstacle-free zone		Text	Existence of an obstacle-free zone for a	When provided					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				precision approach RWY category I						
	RWY marking									
		Type	Text	Type of the RWY marking						
		Description	Text	Description of the RWY marking						
		Geometry	Polygon	The geographical location of the RWY marking						
	RWY centre line LGT									
		Length	Distance	The longitudinal extent of the RWY centre line lights						
		Spacing	Distance	Spacing of the RWY centre line lights						
		Colour	Text	Colour of the RWY centre line lights						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Intensity	Text	Intensity of the RWY centre line lights						
		Position	Point	Geographical location of each individual light of the RWY centre line lights						
	RWY edge LGT									
		Length	Distance	The longitudinal extent of the RWY edge lights						
		Spacing	Distance	Spacing of the RWY edge lights						
		Colour	Text	Colour of the RWY edge lights						
		Intensity	Text	Intensity of the RWY edge lights						
		Position	Point	Geographical location of each individual light of the						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				RWY edge lights						
	Reference code			The intent of the reference code is to provide a simple method for interrelating the numerous specifications concerning the characteristics of aerodromes so as to provide a series of aerodrome facilities that are suitable for the aeroplanes intended to operate at the aerodrome.						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Number	Code list	A number based on the aeroplane reference field length						
		Letter	Code list	A letter based on the aeroplane wingspan and outer main gear wheel span						
	Restriction		Text	Description of restrictions imposed on the RWY						
RWY direction										
	Designator		Text	The full textual designator of the landing and take-off direction — examples: 27, 35L, 01R						
	True bearing		Bearing	The true bearing of the RWY		1/100 degree	Routine	Surveyed	1/100 degree	1 degree

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Type		Text	Type of RWY: precision (Cat I, II, III)/ non-precision/ non-instrument						
	Threshold			The beginning of the portion of the RWY usable for landing						
		Position	Point	The geographical location of the RWY threshold		1 m	Critical	Surveyed	1/100 sec	1 sec
		Elevation	Elevation	Elevation of the RWY threshold		See Note 1				
		Geoid undulation	Height	WGS-84 geoid undulation at the RWY threshold position		See Note 2				
		Type	Text	The indication if the threshold is						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				displaced or not displaced; a displaced threshold is not located at the extremity of the RWY						
		Displacement	Distance	Distance of the displaced threshold	If threshold displaced	1 m	Routine	Surveyed		
	RWY end			RWY end (flight path alignment point)						
		Position	Point	Location of the RWY end in the direction of departure		1 m	Critical	Surveyed	1/100 sec	1 sec
		Elevation	Elevation	Elevation of the end position of the RWY		See RWY centre line points				
	Departure end of RWY (DER)			The end of the area declared suitable for take-off (i.e. the end of the RWY	Beginning of the departure procedure					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				or, where a clearway is provided, the end of the clearway)						
		Position	Point	The geographical location of the DER						
		Elevation	Elevation	The elevation of the DER is the elevation of the end of the RWY or of the clearway, whichever is higher.						
	Touchdown zone			The portion of a RWY beyond the threshold, where landing aeroplanes are intended to first contact the RWY						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Elevation	Elevation	The highest elevation of the touchdown zone of a precision approach RWY	Precision approach RWY	0.25 m or 0.25 ft				
		Slope	Value	The slope of the RWY touchdown zone						
	Slope		Value	The slope of the RWY						
	Land-and-hold short operations (LAHSOs)			LAHSOs						
		Geometry	Line	The geographical location of the LAHSOs						
		Protected element	Text	The name of the RWY or taxiway (TWY) being protected						
	Displaced area			The portion of a RWY between the beginning						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of the RWY and the displaced threshold						
		Geometry	Polygon	Geographical location of the displaced area						
		PCN	Text	The PCN of the displaced area						
		Surface type	Text	The surface type of the displaced area						
		Aircraft restriction	Text	Usage restriction for a specific aircraft type						
	SWY			A defined rectangular area on the ground at the end of the take-off RWY available, prepared as a suitable area in						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				which an aircraft may be stopped in case of an abandoned take-off						
		Length	Distance	The longitudinal extent of the SWY	If any	1 m	Critical	Surveyed	1 m or 1 ft	1 m
		Width	Distance	The width of the SWY		1 m	Critical	Surveyed	1 m or 1 ft	1 m
		Geometry	Polygon	Geographical location of the SWY						
		Slope	Value	The slope of the SWY						
		Surface type	Text	The surface type of the SWY						
	Clearway			A defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				which an aeroplane may make a portion of its initial climb to a specified height						
		Length	Distance	The longitudinal extent of the clearway		1 m	Essential	Surveyed	1 m or 1 ft	
		Width	Distance	The transversal extent of the clearway		1 m	Essential	Surveyed	1 m or 1 ft	
		Ground profile		The vertical profile (or slope) of the clearway	If any					
	RWY end safety area (RESA)			An area symmetrical about the extended RWY centre line and adjacent to the end of the strip, primarily intended to reduce the risk of						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				damage to an aeroplane undershooting or overrunning the RWY						
		Length	Distance	The longitudinal extent of the RESA						
		Width	Distance	The transversal extent of the RESA						
		Longitudinal slope	Value	The longitudinal slope of the RESA						
		Transversal slope	Value	The transversal slope of the RESA						
	Declared distances									
		Take-off run available (TORA)	Distance	The length of the RWY, declared available and suitable for the ground run		1 m	Critical	Surveyed	1 m or 1 ft	1 m

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of an aeroplane taking off						
		Take-off distance available (TODA)	Distance	The length of the take-off run available plus the length of the clearway, if provided		1 m	Critical	Surveyed	1 m or 1 ft	1 m
		Accelerate-stop distance available (ASDA)	Distance	The length of the take-off run available plus the length of the SWY, if provided		1 m	Critical	Surveyed	1 m or 1 ft	1 m
		Landing distance available (LDA)	Distance	The length of the RWY, declared available and suitable for the ground run of an aeroplane landing		1 m	Critical	Surveyed	1 m or 1 ft	1 m
		Remarks	Text	Remarks including RWY entry						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				or start point, where alternative reduced distances have been declared						
	RWY end LGT									
		Colour	Text	Colour of the RWY end lights						
		Position	Point	Geographical location of each individual light of the RWY end lights						
	SWY LGT									
		Length	Distance	The longitudinal extent of the SWY lights						
		Colour	Text	Colour of the SWY lights						
		Position	Point	Geographical location of each individual light of the SWY lights						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Approach lighting system									
		Type	Text	Classification of the approach lighting system, using as criteria Regulation (EU) No 139/2014 and CS-ADR-DSN, especially CS ADR-DSN.M.625 and CS ADR-DSN.M.626						
		Length	Distance	The longitudinal extent of the approach lighting system						
		Intensity	Text	A code indicating the relative intensity of the approach						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				lighting system						
		Position	Point	Geographical location of each individual light of the approach lighting system						
	RWY threshold lights									
		Colour	Text	Colour of the RWY threshold lights						
		Wing bar colour	Text	Colour of the RWY threshold wing bars						
		Position	Point	Geographical location of each individual light of the threshold and wing bar lights						
	Touchdown zone lights									
		Length	Distance	The longitudinal						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				extent of the RWY touchdown zone lights						
		Position	Point	Geographical location of each individual light of the RWY touchdown zone lights						
	Visual-approach slope indicator system									
		Minimum eye height over the threshold (MEHT)	Height	MEHT						
		Location	Point	Geographical location of the visual-approach slope indicator system						
		Angle	Angle	The nominal-approach						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				slope angle(s)						
		Type	Text	The type of visual approach indicator system (PAPI, A-PAPI. etc.)						
		Displacement angle	Angle	Where the axis of the system is not parallel to the RWY centre line, the angle of and the direction of displacement, i.e. left or right						
		Displacement direction	Text	Where the axis of the system is not parallel to the RWY centre line, the angle of and the direction of displacement, i.e. left or right						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Arresting gear		Line	The geographical location of the arresting-gear cable across the RWY						
	Arresting system			High-energy-absorbing material located at the end of a RWY or SWY, designed to be crushed under the weight of an aeroplane as the material exerts deceleration forces on the aircraft landing gear						
		Geometry	Polygon	Geographical location of the arresting system						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Setback	Distance	Setback of the arresting system						
		Length	Distance	The longitudinal extent of the arresting system						
		Width	Distance	The transversal extent of the arresting system						
Radio altimeter area										
	Length		Distance	The longitudinal extent of the radio altimeter area						
	Width		Distance	The transversal extent of the radio altimeter area						
	Geometry		Polygon	Geographical location of the radio altimeter area						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
			Note 1	Threshold elevation for RWYs with non-precision approaches		0.5 m	Essential	Surveyed	1 m or 1 ft	1 m or 1 ft
				Threshold elevation for RWYs with precision approaches		0.25 m	Critical	Surveyed	0.1 m or 0.1 ft	0.5 m or 1 ft
			Note 2	WGS-84 geoid undulation at the RWY threshold for non-precision approaches		0.5 m	Essential	Surveyed	1 m or 1 ft	1 m or 1 ft
				WGS-84 geoid undulation at the RWY threshold for precision approaches		0.25 m	Critical	Surveyed	0.1 m or 0.1 ft	0.5 m or 1 ft

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
Final-approach and take-off area (FATO)				A defined area over which the final phase of the approach manoeuvre before hover or landing is completed and from which the take-off manoeuvre is commenced ; where the FATO is used by helicopters operated in performance class 1, the defined area includes the rejected take-off area available.						
	Threshold point			The beginning of the						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				portion of the FATO, usable for landing						
		Position	Point	Geographical location of the FATO threshold point		1 m	Critical	Surveyed	1/100 sec	1 sec
		Elevation	Elevation	Elevation of the FATO threshold		See Note 1				
		Geoid undulation	Height	WGS-84 geoid undulation at the FATO threshold position		See Note 2				
	DER			The end of the area declared suitable for take-off (i.e. the end of the RWY or, where a clearway is provided, the end of the clearway or the end of						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				the FATO area)						
		Position	Point	Geographical location of the DER		1 m	Critical	Surveyed	1/100 sec	1 sec
		Elevation	Elevation	The higher of the elevations of the beginning and of the end of the RWY/FATO						
	Type		Text	Type of FATO						
	Designation		Text	The full textual designator of the landing and take-off area						
	Length		Distance	The longitudinal extent of FATO		1 m	Critical	Surveyed	1 m or 1 ft	1 m
	Width		Distance	The transversal extent of FATO						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
	Geometry		Polygon	Geographical location of the FATO element						
	Slope		Value	The slope of FATO						
	Surface type		Text	The surface type of FATO						
	True bearing		Bearing	The true bearing of FATO		1/100 degree	Routine	Surveyed	1/100 degree	
	Declared distances									
		Take-off distance available (TODAH)	Distance	The FATO length plus the helicopter clearway length (if provided)	And, if applicable, alternative reduced declared distances	1 m	Critical	Surveyed	1 m or 1 ft	
		Rejected take-off distance available (RTODAH)	Distance	The length of FATO, declared available and suitable for helicopters operated in performance class 1, to complete a		1 m	Critical	Surveyed	1 m or 1 ft	

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				rejected take-off						
		Landing distance available (LDAH)	Distance	The length of FATO plus any additional area declared available and suitable for helicopters to complete the landing manoeuvre from a defined height		1 m	Critical	Surveyed	1 m or 1 ft	
		Remarks	Text	Remarks including RWY entry or start point, where alternative reduced distances have been declared						
	FATO marking									
		Description	Text	Description of the						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				FATO markings						
	Approach lighting system									
		Type	Text	Classification of the approach lighting system, using as criteria Regulation (EU) No 139/2014 and CS-ADR-DSN, specifically CS ADR-DSN.M.625 and CS ADR-DSN.M.626						
		Length	Distance	The longitudinal extent of the approach lighting system						
		Intensity	Text	A code indicating the relative intensity of						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				the approach lighting system						
		Position	Point	Geographical location of each individual light of the approach lighting system						
	Area lights									
		Description	Text	Description of the area lights						
		Position	Point	Geographical location of each individual light of the area lights						
	Aiming point lights									
		Description	Text	Description of the aiming point lights						
		Position	Point	Geographical location of each individual light of the						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				aiming point lights						
Touchdown and lift-off area (TLOF)				An area on which a helicopter may touch down or lift off						
	Designator		Text	The full textual designator of TLOF						
	Centre point									
		Position	Point	Geographical location of the TLOF threshold point		1 m	Critical	Surveyed	1/100 sec	1 sec
		Elevation	Elevation	Elevation of the TLOF threshold		See Note 1				
		Geoid undulation	Height	The WGS-84 geoid undulation TLOF centre point position		See Note 2				
	Length		Distance	The longitudinal extent of TLOF		1 m	Critical	Surveyed	1 m or 1 ft	1 m
	Width		Distance	The transversal		1 m	Critical	Surveyed	1 m or 1 ft	1 m

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				extent of TLOF						
	Geometry		Polygon	The geographical location of the TLOF element						
	Slope		Value	The slope of TLOF						
	Surface type		Text	The surface type of TLOF						
	Bearing strength		Value	The bearing strength of TLOF					1 ton	
	Visual-approach slope indicator system type		Text	Type of the visual-approach slope indicator system						
	Marking									
		Description	Text	Description of the TLOF markings						
Safety area				A defined area on a heliport surrounding the FATO, which is free of obstacles,						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				other than those required for air navigation purposes, and intended to reduce the risk of damage to helicopters accidentally diverging from the FATO						
	Length		Distance	The longitudinal extent of the safety area						
	Width		Distance	The transversal extent of the safety area						
	Surface type		Text	The surface type of the safety area						
Helicopter clearway				A defined area on the ground or water, selected and/or						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				prepared as a suitable area over which a helicopter operated in performance class 1 may accelerate and achieve a specific height						
	Length		Distance	The longitudinal extent of the helicopter clearway						
	Ground profile		Value	The vertical profile (or slope) of the helicopter clearway						
			Note 1	The FATO threshold for heliports with or without a Point-in-Space (PinS) approach		0.5 m	Essential	Surveyed	1 m or 1 ft	

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res
				The FATO threshold for heliports intended to be operated		0.25 m	Critical	Surveyed	1 m or 1 ft (non-precision) 0.1 m or 0.1 ft (precision)	
			Note 2	The WGS–84 geoid undulation at the FATO threshold and the TLOF geometric centre, for heliports with or without a PinS approach		0.5 m	Essential	Surveyed	1 m or 1 ft	
				The WGS–84 geoid undulation at the FATO threshold and the TLOF geometric centre, for heliports intended to be operated		0.25 m	Critical	Surveyed	1 m or 1 ft (non-precision) 0.1 m or 0.1 ft (precision)	

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Apron				A defined area on a land aerodrome, intended to accommodate aircraft as regards loading or unloading passengers, mail or cargo, fuelling, parking or maintenance						
	Designator		Text	The full textual name or designator used to identify an apron at an aerodrome/heliport						
	Geometry		Polygon	Geographical location of the apron element		1 m	Routine	Surveyed	1/10 sec	1 sec
	Type		Text	Classification of the primary use of the apron						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Aircraft restriction		Text	Usage restriction (prohibition) for a specified aircraft type						
	Surface type		Text	The surface type of the apron						
	Strength									
		PCN	Text	PCN of the apron						
		Pavement type	Text	ACN-PCN determination						
		Subgrade category	Text	Subgrade strength category of the apron						
		Allowable pressure	Text	The maximum allowable tyre pressure category or the maximum allowable tyre pressure value						
		Evaluation method	Text	The evaluation						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				method used to determine the apron strength						
	Elevation		Elevation	The elevation of the apron						
TWY				A defined path on a land aerodrome, established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another						
	Designator		Text	The full textual designator of the TWY						
	Width		Distance	The transversal extent of the TWY		1 m	Essential	Surveyed	1 m or 1 ft	
	Geometry		Polygon	Geographical location						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of the TWY element						
	Bridge		Text	Type of the bridge (none, overpass, underpass)						
	Surface type		Text	Surface type of the TWY						
	Strength									
		PCN	Text	PCN of the TWY						
		Pavement type	Text	ACN-PCN determinatio n						
		Subgrade category	Text	Subgrade strength category of the TWY						
		Allowable pressure	Text	Maximum allowable tyre pressure category or maximum allowable tyre pressure value						
		Evaluation method	Text	The evaluation method						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				used to determine the taxiway strength						
	Aircraft restrictions		Text	Usage restriction (prohibition) for a specified aircraft type						
	Reference code letter		Code list	A letter based on the aeroplane wingspan and outer main gear wheel span						
	Location for wing tips extension		Point/Polygon	For aerodromes accommodating aeroplanes with folding wing tips, the location where to extend the wing tips						
	Centre line points									
		Position	Point	Geographical coordinates		0.5 m	Essential	Surveyed	1/100 sec	1/100 sec

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of the TWY centre line points						
		Elevation	Elevation	Elevation of taxiway centre line points		1 m	Essential	Surveyed		
	Shoulder			An area adjacent to the edge of a pavement, so prepared as to provide a transition between the pavement and the adjacent surface						
		Geometry	Polygon	The geographical location of the TWY shoulder						
		Surface type	Text	Surface type of the TWY shoulder						
		Width	Distance	The width of the TWY shoulder		1 m	Essential	Surveyed	1 m or 1 ft	
	Guidance lines									

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Geometry	Line	Geographical location of the guidance lines		0.5 m	Essential	Surveyed	1/100 sec	1/100 sec
		Colour	Text	Colour of TWY guidance lines						
		Style	Text	Style of TWY guidance lines						
		Wingspan	Value	Wingspan						
		Maximum speed	Value	Maximum speed						
		Direction	Text	Direction						
	Intermediate-holding-position marking line		Line	Intermediate holding position marking line		0.5 m	Essential	Surveyed	1/100 sec	1 sec
	TWY marking									
		Description	Text	Description of the TWY marking						
	TWY edge lights									
		Description	Text	Description of the TWY edge lights						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Position	Point	Geographical location of each individual light of the TWY edge lights						
	TWY centre line lights									
		Description	Text	Description of the TWY centre line lights						
		Position	Point	Geographical location of each individual light of the TWY centre line lights						
	Stop bars									
		Description	Text	Description of the stop bars	If any					
		Location	Line	Location of the stop bars						
	RWY guard lights									
		Description	Text	Description of the RWY guard lights and other RWY	If any					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				protection measures						
		Location	Point	Location of the stop bar	Configuration A					
		Location	Line	Location of the stop bar	Configuration B					
	RWY holding position			A designated position intended to protect a RWY, an obstacle limitation surface, or an instrument landing system (ILS)/micro wave landing system (MLS) critical/sensitive area, at which taxiing aircraft and vehicles shall stop and hold, unless						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				otherwise authorised by the aerodrome control tower						
		Geometry	Line	Geographical location of the RWY holding position		0.5 m	Essential	Surveyed	1/100 sec	1 sec
		Protected RWY	Text	Designator of the RWY protected						
		Cat stop	Code list	Category (CAT) of the RWY (0, I, II, III)						
		RWY ahead text	Text	Actual text as in the marking; e.g. ‘RWY AHEAD’ or ‘RUNWAY AHEAD’						
	Intermediate holding position	Geometry	Line	Geographical location of the intermediate holding position — a designated position						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				intended for traffic control, at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower						
Helicopter ground TWY				A ground TWY intended for the ground movement of wheeled undercarriage helicopters						
	Designator		Text	The full textual designator of the helicopter						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				ground TWY						
	Centre line points		Point	Geographical location of the helicopter ground centre line TWY points		0.5 m	Essential	Surveyed/calculated		
	Elevation		Elevation	Elevation of the helicopter ground TWY		1 m	Essential	Surveyed		
	Width		Distance	The transversal extent of the helicopter ground TWY		1 m	Essential	Surveyed		
	Surface type		Text	The surface type of the helicopter ground TWY						
	Intersection marking line		Line	Helicopter ground TWY intersection marking line		0.5 m	Essential	Surveyed	1/100 sec	1 sec
	Lighting									

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Description	Text	Description of the helicopter ground TWY light						
		Position	Point	Geographical location of each individual light of the helicopter ground TWY lights						
	Marking									
		Description	Text	Description of helicopter ground TWY marking						
Helicopter air TWY				A defined path on the surface, established for the air taxiing of helicopters						
	Designator			The full textual designator of the helicopter air TWY						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Centre line points		Point	Geographical location of the helicopter air TWY centre line points		0.5 m	Essential	Surveyed/calculated		
	Elevation		Elevation	Elevation of the helicopter air TWY		1 m	Essential	Surveyed		
	Width		Distance	The transversal extent of the helicopter air TWY		1 m	Essential	Surveyed		
	Surface type		Text	Surface type of the helicopter air TWY						
	Lighting									
		Description	Text	Description of the helicopter air TWY lighting						
		Position	Point	Geographical location of each individual light of the helicopter						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				air TWY lights						
	Marking									
		Description	Text	Description of the helicopter air TWY marking						
Helicopter air transit routes				A defined path established for the movement of helicopters from one part of a heliport to another; a taxiing route includes a helicopter air or ground TWY centred on the taxiing route.						
	Designator		Text	Designator of the helicopter						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				air transit route						
	Geometry		Line	Geographical location of the helicopter air transit route						
	Width		Distance	The transversal extent of the helicopter air transit route		1 m	Essential	Surveyed		
INS checkpoint										
	Location		Point	Geographical location of the INS checkpoint	Where available	0.5 m	Routine	Surveyed	1/100 sec	1/100 sec
Very-high-frequency (VHF) omnidirectional range (VOR) checkpoint										
	Location		Point	Geographical location of the VOR checkpoint	Where available					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Frequency		Value	Frequency of the VOR checkpoint						
Altimeter checkpoint										
	Location		Point	Geographical location of the altimeter checkpoints						
	Elevation		Elevation	Elevation of the altimeter checkpoints						
Aircraft stand				A designated area on an apron intended to be used for parking an aircraft						
	Name		Text	Name of the aircraft stand point						
	Aircraft stand points	Location	Point	Geographical location of the aircraft stand point		0.5 m	Routine	Surveyed	1/100 sec	1/100 sec
		Aircraft types	Code list	Aircraft types						
	Identification sign		Text	Description of the						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				aircraft stand identification sign						
	Visual docking/parking guidance system		Text	Description of the visual docking/parking guidance system at the aircraft stand						
	Parking-stand area		Polygon	Geographical location of the parking-stand area						
	Jetway		Code list	Jetway available at the aircraft stand						
	Fuel		Code list	Fuel available at the aircraft stand						
	Ground power		Code list	Ground power available at the aircraft stand						
	Towing		Code list	Towing available at						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				the aircraft stand						
	Terminal		Text	Terminal-building reference						
	Surface type		Text	Surface type of the aircraft stand						
	Aircraft restriction		Text	Usage restriction (prohibition) for a specified aircraft type						
	PCN		Text	PCN of the aircraft stand						
	Stand guidance line									
		Geometry	Line	Geographical location of the stand guidance line		0.5 m	Essential	Surveyed	1/100 sec	
		Elevation	Elevation	Elevation of the parking guidance line points		1 m	Essential	Surveyed		
		Direction	Text	Direction of the stand						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				guidance line						
		Wingspan	Value	Wingspan						
		Colour	Code list	Colour of the stand guidance line						
		Style	Code list	Style of the stand guidance line						
Helicopter stand				An aircraft stand that provides for parking a helicopter, and where ground taxi operations are completed, or where the helicopter touches down and lifts off for air taxiing operations.						
	Name		Text	Name of the helicopter stand						
	Location		Point	Geographical location		0.5 m	Essential	Surveyed	1/100 sec	

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of the helicopter stand point/INS checkpoints						
De-icing area				A facility where frost, ice or snow is removed (de-icing) from the aeroplane to provide clean surfaces, and/or where clean surfaces of the aeroplane receive protection (anti-icing) against the formation of frost or ice, and accumulation of snow or slush, for a limited period of time						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Identifier		Text	Identifier of the de-icing area						
	Geometry		Polygon	Geographical location of the de-icing area		1 m	Routine	Surveyed	1/10 sec	1 sec
	Surface type		Text	The surface type of the de-icing area						
	Id base		Text	Name of the underlying TWY, parking stand or apron element						
	Aircraft restriction		Text	Usage restriction (prohibition) for a specified aircraft type						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Communication facility										
	Service designation		Text	Designation of the service provided						

	Call sign		Text	Call sign of the communication facility						
	Channel		Text	Channel/frequency of the communication facility						
	Logon address		Text	Logon address of the facility	As appropriate					
	Hours of operation		Schedule	Operational hours of the station serving the unit						

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2. Table 3. ATS and other routes data, in Appendix 1, is replaced by the following:

‘ 3. ATS and other routes data

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
ATS route				A specified route designed for channelling the flow of traffic as necessary for the provision of ATS						
	Designator		Text	Designators for ATS routes in accordance with Annex XI (Part-FPD) to this Regulation						
	Designator prefix		Text	The prefix of the route designator as specified in Note 1						
Other route				A specified route designed for channelling the flow of traffic as necessary without						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				provision of ATS						
	Designator		Text	Designator of the route						
	Type		Text	Type of route (e.g. VFR uncontrolled navigation routes)						
	Flight rules		Code list	Information on the flight rules that apply to the route (IFR/VFR)						
Route segment										
	From point			Reference to the first point of a route segment						
		Name	Text	The coded designators or code names of a significant point						
		Reporting	Code list	Indication of the ATS/MET reporting						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				requirement as ‘compulsory’ or ‘on request’						
	To point			Reference to the second point of a route segment						
		Name	Text	The coded designators or code names of a significant point						
		Reporting	Code list	Indication of the ATS/MET reporting requirement as ’compulsory’ or ‘on request’						
	Track		Bearing	Track, VOR radial or magnetic bearing of a route segment		1/10 degree (terminal arrival departure)	Routine (terminal arrival departure)	Calculated (terminal arrival departure)	1 degree (terminal arrival departure)	1 degree (terminal arrival departure)

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Change over point		Point	The point at which an aircraft navigating on an ATS route segment defined by reference to the VOR ranges is expected to transfer its primary navigation reference from the facility behind it to the next facility ahead of it	In case of a VOR radial					
	Length		Distance	The geodesic distance between ‘from point’ and ‘to point’		See Note 2				
	Upper limit		Altitude	The upper limit of the route segment						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Lower limit		Altitude	The lower limit of the route segment						
	Minimum en-route altitude (MEA)		Altitude	It is the altitude of an en-route segment that provides adequate reception of relevant navigation facilities and ATS communications, complies with the airspace structure, and provides the required obstacle clearance.		50 m	Routine	Calculated	50 m or 100 ft	50 m or 100 ft
	Minimum obstacle clearance altitude (MOCA)		Altitude	It is the minimum altitude of a defined segment that		50 m	Routine	Calculated	50 m or 100 ft	50 m or 100 ft

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				provides the required obstacle clearance						
	Minimum flight altitude		Altitude	Minimum flight altitude		50 m	Routine	Calculated	50 m or 100 ft	50 m or 100 ft
	Lateral limits		Distance	Lateral limits of the route						
	Area minimum altitude (AMA)		Altitude	It is the minimum altitude to be used under instrument meteorological conditions (IMC), which provides a minimum obstacle clearance within a specified area, normally formed by parallels and meridians.						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Minimum vectoring altitude (MVA)		Altitude	MVA						
	Restrictions		Text	Indication on any area speed and level/altitude restrictions, where established						
	Direction of cruising levels			Indication of the direction of the cruising level (even, odd, none (NIL))						
		Forward	Code list	Indication of the direction of the cruising level (even, odd, NIL) from the first point to the second point of the route segment						
		Backward	Code list	Indication of the						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				direction of the cruising level (even, odd, NIL) from the second point to the first point of the route segment						
	Availability		Text	Information on the route availability						
	Class of airspace		Text	Classification of airspace which determines the operating rules, flight requirements and services provided						
	Performance-based navigation (PBN) requirements			Area navigation based on PBN requirements for aircraft operating along an	PBN only					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				ATS route, on an instrument approach procedure, or in a designated airspace						
		Navigation specification(s)	Text	Designation of the navigation specification(s) applicable to a specified segment or segments; there are two kinds of navigation specifications: (a) required navigation performance (RNP) specification: navigation specification based on						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH. (b) Area navigation (RNAV) specification: navigation specification based on area navigation that does not include the requirement for performance monitoring						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.						
		Navigation performance requirements	Text	The navigation accuracy requirement for each PBN (RNAV or RNP) route segment						
		Sensor requirements	Text	Indication of the sensor requirements including any navigation specification limitations						
	Controlling unit									
		Name	Text	Name of the unit providing the service						
		Channel	Text	Operating channel/freq						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				uency of the controlling unit						
		Logon address	Text	A specified code used for data link logon to the controlling ATS unit	If applicable					
			Note 1	U = upper	Note 2	1/10 km	Routine	Calculated	1/10 km or 1/10 nm	1 km or 1 nm
				H = helicopter		1/100 km	Essential	Calculated	1/100 km or 1/100 nm	1 km or 1 nm
				S = supersonic						
				T = tacan						
				Other						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Waypoint										
	Identification		Text	Names, coded designators or code names given to the significant point						
	Position		Point	Geographical location		100 m	Essential	Surveyed/ calculated	1 sec	1 sec

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of the waypoint						
	Formation									
		Navigation aid (navaid)	Text	The station identification of the VOR/DME reference						
		Bearing	Bearing	The bearing to the VOR/DME reference if the waypoint is not collocated with it		See Note 1 below				
		Distance	Distance	The distance from the VOR/DME reference if the waypoint is not collocated with it		See Note 2 below				
					Note 1	1/10 degree	Routine	Calculated	1/10 degree	1/10 degree
						1/100 degree	Essential	Calculated	1/100 degree	1/10 degree

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
								Calculated		
					Note 2	1/10 km	Routine	Calculated	1/10 km or 1/10 nm	2/10 km (1/10 nm)
						1/100 km	Essential	Calculated	1/100 km or 1/100 nm	2/10 km (1/10 nm)

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
En-route holding				A predetermined manoeuvre that keeps the aircraft within the specified airspace while awaiting further clearance						
	Identification		Text	Identification of the holding procedure						
	Fix		Text	Identification of the holding-procedure fix		100 m	Essential	Surveyed/ calculated	1 sec	1 sec
	Waypoint		Point	Geographical location						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				of the holding waypoint						
	Inbound track		Bearing	The inbound track of the holding procedure						
	Turn direction		Text	Direction of the procedure turn						
	Speed		Value	Maximum indicated airspeed						
	Level									
		Minimum holding level	Altitude	Minimum holding level of the holding procedure						
		Maximum holding level	Altitude	Maximum holding level of the holding procedure						
	Outbound time/distance		Value	Time/distance value of the holding procedure						
	Controlling unit									

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
		Name	Text	Indication of the controlling unit						
		Frequency	Value	The operating frequency/channel of the controlling unit						
	Special holding entry procedure		Text	Textual description of the special VOR/DME entry procedure	In case an entry radial to a secondary fix at the end of the outbound leg has been established for a VOR/DME holding pattern					

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3. Table 5. Radio navigation aids/systems data, in Appendix 1, is replaced by the following:

‘ **Table 5. Radio navigation aids/systems data**

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Radio navigation aid										
	Type		Text	Type of the radio navigation aid						
	Identification		Text	The code assigned to uniquely identify the navaid						
	Name		Text	The textual name assigned to the navaid						
	ILS facility classification		Code list	A classification based on the functional and performance capabilities of an ILS	ILS					
	GBAS facility classification		Code list	A classification based on the functional and	GBAS					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				performance capabilities of the GBAS ground subsystem						
	GBAS approach facility designation		Code list	A classification based on the GBAS service volume and performance requirements for each supported approach	GBAS					
	Area of operation		Text	Indication whether navigation aid serves en-route (E), aerodrome (A) or dual (AE) purposes						
	Aerodrome/ heliport served		Text	The ICAO location indicator or name of the aerodromes/						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				heliports served						
	RWY served		Text	Designator of the RWY served						
	Operating entity		Text	Name of the operating entity of the facility						
	Type of supported operations		Code list	Indication of the type of supported operation for ILS/MLS, basic GNSS, satellite-based augmentation system (SBAS), and ground-based augmentation system (GBAS)						
	Collocation		Text	Information that a navaid is collocated with another navaid						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Hours of operation		Schedule	The hours of operation of the radio navigation aid						
	Magnetic variation			The angular difference between the true north and the magnetic north						
		Angle	Angle	The magnetic variation at the radio navigation aid	ILS/NDB	See Note 1 below				
		Date	Date	The date on which the magnetic variation had the correspondi ng value						
	Station declination		Angle	An alignment variation of the navaid between the zero-degree radial and the true	VOR/ILS/M LS					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				north, determined at the time the station is calibrated						
	Zero bearing direction		Text	Direction of the ‘zero bearing’ provided by the station, e.g. magnetic north, true north, etc.	VOR					
	Frequency		Value	Frequency or tuning frequency of the radio navigation aid						
	Channel		Text	The channel number of the radio navigation aid	DME or GBAS					
	Position		Point	Geographical location of the radio navigation aid		See Note 2 below				
	Elevation		Elevation	The elevation of the	DME or GBAS	See Note 3 below				

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				transmitting antenna of the DME or the elevation of the GBAS reference point						
	Ellipsoidal height		Height	The ellipsoidal height of the GBAS reference point	GBAS					
	Localiser alignment									
		Bearing	Bearing	The localiser course	ILS localiser	1/100 degree	Essential	Surveyed	1/100 degree (if true)	1 degree
		Type	Text	The type of localiser alignment, true or magnetic	ILS localiser					
	Zero azimuthal alignment		Bearing	MLS zero azimuthal alignment	MLS	1/100 degree	Essential	Surveyed	1/100 degree (if true)	1 degree
	Angle		Angle	The angle of the glide path of an ILS or the normal glide path	ILS GP/MLS					

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				angle of an MLS installation						
	RDH		Value	The value of the ILS reference datum height (ILS RDH)	ILS GP	0.5 m	Critical	Calculated		
	Localiser antenna to RWY end distance		Distance	ILS localiser — RWY/FATO end distance	ILS localiser	3 m	Routine	Calculated	1 m or 1 ft	As plotted
	ILS glideslope antenna to TRSH distance		Distance	ILS glideslope antenna — threshold distance along the centre line	ILS GP	3 m	Routine	Calculated	1 m or 1 ft	As plotted
	ILS marker to TRSH distance		Distance	ILS marker — threshold distance	ILS	3 m	Essential	Calculated	1 m or 1 ft	2/10 km (1/10 nm)
	ILS DME antenna to TRSH distance		Distance	ILS DME antenna — threshold distance along the centre line	ILS	3 m	Essential	Calculated	1 m or 1 ft	As plotted
	MLS azimuthal antenna to		Distance	MLS azimuthal antenna —	MLS	3 m	Routine	Calculated	1 m or 1 ft	As plotted

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	RWY end distance			RWY/FATO end distance						
	MLS elevation antenna to TRHS distance		Distance	MLS elevation antenna — threshold distance along the centre line	MLS	3 m	Routine	Calculated	1 m or 1 ft	As plotted
	MLS DME antenna to TRHS distance		Distance	MLS DME/P antenna — threshold distance along the centre line	MLS	3 m	Essential	Calculated	1 m or 1 ft	As plotted
	Signal polarisation		Code list	GBAS signal polarisation (GBAS/H or GBAS/E)	GBAS					
	Designated operational coverage (DOC)		Text	DOC or standard service volume (SSV) as range or service volume radius from the navaid/GBA						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				S reference point, height and sectors, if required						
			Note 1		ILS Localiser	1 degree	Essential	Surveyed	1 degree	
					NDB	1 degree	Routine	Surveyed	1 degree	
								Surveyed		
			Note 2		Aerodrome navaid	3 m	Essential	Surveyed	1/10 sec	As plotted
					GBAS reference point	1 m		Surveyed		
					En-route	100 m	Essential	Surveyed	1 sec	
								Surveyed		
			Note 3		DME	30 m (100 ft)	Essential	Surveyed	30 m (100 ft)	30 m (100 ft)
					DME/P	3 m	Essential	Surveyed	3 m (10 ft)	
					GBAS reference point	0.25 m	Essential		1 m or 1 ft	

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
GNSS				A worldwide position and time determination system						

				that includes one or more satellite constellations, aircraft receivers and system integrity monitoring, augmented as necessary to support the required navigation performance for the intended operation						
	Name		Text	The name of the GNSS element (GPS, GBAS, GLONASS, EGNOS, MSAS, WAAS, etc.)						
	Frequency		Value	Frequency of the GNSS	As appropriate					
	Service area		Polygon	Geographical location of the						

				GNSS service area						
	Coverage area		Polygon	Geographical location of the GNSS coverage area						
	Operating authority		Text	Name of the operating authority of the facility						
Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Aeronautical ground lights				Ground lights and other light beacons designating geographical positions that are selected by the Member State as being significant						
	Type		Text	Type of beacon						
	Designator		Text	The code assigned to uniquely identify the beacon						

	Name		Text	The name of the city or town or other identification of the beacon						
	Intensity		Value	Intensity of the light of the beacon					1000 cd	
	Characteristics		Text	Information about the characteristics of the beacon						
	Hours of operations		Schedule	The hours of operation of the beacon						
	Position		Point	Geographical location of the beacon						
Marine lights										
	Position		Point	Geographical location of the beacon						
	Visibility range		Distance	The visibility range of the beacon						
	Characteristics		Text	Information about the						

				characteristics of the beacon						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
Special navigation system				Stations associated with special navigation systems (DECCA, LORAN, etc.)						
	Type		Text	Type of service available (master signal, slave signal, colour)						
	Designator		Text	The code assigned to uniquely identify the special navigation system						
	Name		Text	The textual name assigned to the special navigation system						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
	Frequency		Value	Frequency (channel number, basic pulse rate, recurrence rate, as applicable) of the special navigation system						
	Hours of operations		Schedule	The hours of operation of the special navigation system						
	Position		Point	Geographical location of the special navigation system		100 m	Essential	Surveyed/ calculated		
	Operating entity		Text	Name of the operating entity of the facility						
	Facility coverage		Text	Description of the special navigation system						

Subject	Property	Sub-property	Type	Description	Note	Accuracy	Integrity	Orig. Type	Pub. Res.	Chart Res.
				facility coverage						

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