RP-040053

TSG RAN Meeting #23 Phoenix, Arizona, USA, 10 - 12 March 2004

Title

Source Agenda Item CRs (Rel-4 and Rel-5/Rel-6 Category A) to TS 25.423, TS 25.423 and (Rel-5 and Rel-6 Category A) to TS 25.453 on Alignment with 23.032 correction of Included Angle for Ellipsoid Arc TSG RAN WG3 7.4.6

RAN3 Tdoc	CR.	Rev.	Cat	Spec.	curr. Vers.	new Vers.	REL	Work Item	Title
R3-040282	639	-	F	25.413	4.11.0	4.12.0	REL-4	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040283	640	-	А	25.413	5.7.0	5.8.0	REL-5	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040284	641	-	А	25.413	6.0.0	6.1.0	REL-6	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040316	923	-	F	25.423	4.11.0	4.12.0	REL-4	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040317	924	-	А	25.423	5.8.0	5.9.0	REL-5	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040318	925	-	А	25.423	6.0.0	6.1.0	REL-6	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040319	67	-	F	25.453	5.8.0	5.9.0	REL-5	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc
R3-040320	68	-	А	25.453	6.3.0	6.4.0	REL-6	TEI4	Alignment with 23.032 correction of Included Angle for Ellipsoid Arc

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For \underline{HELP} on using this form, see bottom of this page or look at the pop-up text over the ${\mathbb R}$ symbols.												
Proposed chang	ge a	offects:	JICC a	ррѕж	М	=	Rad	io A	ccess Netwo	rk 🗙	Core Ne	etwork X
Title:	ж	Alignmen	t with 2	3.032 corre	ection of	Inclu	ded	Ang	le for Ellipso	id Arc		
Source:	ж	RAN3										
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Work item code:	:ж	TEI4							Date: #	10/	02/2004	
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		C (fun	ctional i	modification	of feature	e)			R98	(Rele	ase 1998)	
		D (edi	torial m	odification)					R99	(Rele	ase 1999)	
				ns of the abo	ove categ	ories	can		Rel-4	(Rele	ase 4)	
		be found in	3GPP	<u>R 21.900</u> .					Rel-5	(Rele	ase 5)	
									Rel-6	(Rele	ase 6)	

 changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval. Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to 360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from 2Ns a 2(N+1) to 2Ns a 2(N+1). Summary of change: # The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from 2Ns a 2(N+1) to 2Ns a 2(N+1). Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc. This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for 		
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360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from 2N≤ a ≤2(N+1) to 2N≤ a ≤2(N+1). Summary of change: # The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from 2N≤ a ≤2(N+1) to 2N≤ a ≤2(N+1). Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc. This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for		description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number:
 (a) in degrees it describes is modified from 2N≤ a ≤2(N+1) to 2N≤ a ≤2(N+1). Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc. This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for 		360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics
release):This CR has isolated impact towards the previous version of the specification (same release).This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for	Summary of change: ೫	
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25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for		
positioning reporting.		
The impact can be considered isolated because it only affects the relation		The impact can be considered isolated because it only affects the relation

	between the signalled value and the represented Included Angle.							
Consequences if not approved:	* The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.							
Clauses affected:	₩ 9.2.3.11							
Other specs	Y N X Other core specifications CR640 25.413 Rel-5, CR641 25.413 Rel-6, CR923 25.423 Rel-4, CR924 25.423 Rel-4, CR924 25.423 Rel-5, CR925 25.423 Rel-6, CR067 25.453 Rel-6, CR068 25.453 Rel-6							
affected:	X Test specifications							
	X O&M Specifications							
Other comments:	¥							

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.3.11 Geographical Area

Geographical Area IE is used to identify an area, as seen from the CN, using geographical coordinates. The reference system is the same as the one used in [20].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Choice Geographical Area				
>Point			See below	Ellipsoid point
>Point With Uncertainty			See below	Ellipsoid point with uncertainty circle
>Polygon			See below	List of Ellipsoid points
>Ellipsoid point with uncertainty Ellipse			See below	Ellipsoid point with uncertainty Ellipse
>Ellipsoid point with altitude			See below	Ellipsoid point with altitude
>Ellipsoid point with altitude and uncertainty Ellipsoid			See below	Ellipsoid point with altitude and uncertainty Ellipsoid
>Ellipsoid Arc			See below	Ellipsoid Arc

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Point				
>Geographical Coordinates	М		See below	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Point With Uncertainty				
>Geographical Coordinates	M		See below	
>Uncertainty Code	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Polygon				
>Geographical	Μ	1 to	See below	
Coordinates		<maxnoofpoints></maxnoofpoints>		

Range bound	Explanation				
maxnoofPoints	Maximum no. of points in polygon. Value is 15.				

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with uncertainty Ellipse				
>Geographical Coordinates	М		See below	
>Uncertainty Ellipse	M		See below	
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with altitude				
>Geographical Coordinates	Μ		See below	
>Altitude and direction	Μ		See below	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with altitude and uncertainty Ellipsoid				
>Geographical Coordinates	M		See below	
>Altitude and direction	M		See below	
>Uncertainty Ellipse	M		See below	
>Uncertainty Altitude	M		INTEGER(0127)	
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid Arc				
>Geographical Coordinates	М		See below	
>Inner radius	М		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
>Uncertainty radius	M		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$
>Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le 2 \le 2(N+1)$
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates				
>Latitude Sign	М		ENUMERATED (North, South)	
>Degrees Of Latitude	М		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: $N \le 2^{23} X / 90 < N+1$ X being the latitude in degree (0° 90°)
>Degrees Of Longitude	М		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: $N \le 2^{24} X / 360 < N+1$ X being the longitude in degree (-180°+180°)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uncertainty Ellipse				
>Uncertainty semi-major	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Uncertainty semi-minor	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Orientation of major axis	М		INTEGER(0179)	The relation between the IE value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$. The values 90179 shall not be used.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Altitude and direction				
>Direction of Altitude	M		ENUMERATED (Height, Depth)	
>Altitude	M		INTEGER (02 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is $N \le a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all grater values of (a).

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		be found in	3GPP	<u>TR 21.900</u> .					Rel-5	•	ease 5)	
									Rel-6	(Rele	ease 6)	

Reason for change: ೫	The semantic description for the Included Angle (in the Ellipsoid Arc) was changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval.
	Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to 360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from 2N≤ a ≤2(N+1) to 2N< a ≤2(N+1).
Summary of change:	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
	Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
	This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.
	This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.
	The impact can be considered isolated because it only affects the relation
	release): This CR has isolated impact towards the previous version of the specification (same release). This CR has no impact on implementations behaving according to TS 23.03 v410 (December 2002) for the Ellipsoid Arc. This CR has an impact on implementations behaving according to TS 25.41 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.

		bet	between the signalled value and the represented Included Angle.			
Consequences if	ж	The	sematics description in RA	NAP, R	NSAP and PCAP will not be in line with	
not approved:					allow the representation of a full circle for	
			ellipsoid arc geographical sl		·	
Clauses affected:	ж	9.2	3.11			
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Other specs	ж	X	Other core specifications	ж	CR639 25.413 Rel-4,	
					CR641 25.413 Rel-6,	
					CR923 25.423 Rel-4,	
					CR924 25.423 Rel-5,	
					CR925 25.423 Rel-6,	
					CR067 25.453 Rel-5,	
					CR068 25.453 Rel-6	
affected:		>	Test specifications			
		-				

Other comments:

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Comprehensive information and tips about how to create CRs can be found at <u>http://www.3gpp.org/specs/CR.htm</u>. Below is a brief summary:

X O&M Specifications

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.3.11 Geographical Area

The *Geographical Area* IE is used to identify an area using geographical coordinates. The reference system is the same as the one used in [20].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Choice Geographical Area				
>Point			See below	Ellipsoid point
>Point With Uncertainty			See below	Ellipsoid point with uncertainty circle
>Polygon			See below	List of Ellipsoid points
>Ellipsoid point with uncertainty Ellipse			See below	Ellipsoid point with uncertainty Ellipse
>Ellipsoid point with altitude			See below	Ellipsoid point with altitude
>Ellipsoid point with altitude and uncertainty Ellipsoid			See below	Ellipsoid point with altitude and uncertainty Ellipsoid
>Ellipsoid Arc			See below	Ellipsoid Arc

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Point				
>Geographical Coordinates	М		See below	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Point With Uncertainty				
>Geographical Coordinates	M		See below	
>Uncertainty Code	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Polygon				
>Geographical	М	1 to	See below	
Coordinates		<maxnoofpoints></maxnoofpoints>		

Range bound	Explanation
maxnoofPoints	Maximum no. of points in polygon. Value is 15.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with uncertainty Ellipse				
>Geographical Coordinates	М		See below	
>Uncertainty Ellipse	M		See below	
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with altitude				
>Geographical Coordinates	М		See below	
>Altitude and direction	М		See below	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with altitude and uncertainty Ellipsoid				
>Geographical Coordinates	M		See below	
>Altitude and direction	M		See below	
>Uncertainty Ellipse	М		See below	
>Uncertainty Altitude	M		INTEGER(0127)	
>Confidence	Μ		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid Arc				
>Geographical Coordinates	М		See below	
>Inner radius	М		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
>Uncertainty radius	M		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$
>Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N≤< a <≤2(N+1)
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates				
>Latitude Sign	M		ENUMERATED (North, South)	
>Degrees Of Latitude	М		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: $N \le 2^{23} X / 90 < N+1$ X being the latitude in degree (0° 90°)
>Degrees Of Longitude	М		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

IE/Group Name	Presence	Range	IE type and reference	Semantics description		
Uncertainty Ellipse						
>Uncertainty semi-major	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$		
>Uncertainty semi-minor	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$		
>Orientation of major axis	М		INTEGER(0179)	The relation between the IE value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$. The values 90179 shall not be used.		

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Altitude and direction				
>Direction of Altitude	M		ENUMERATED (Height, Depth)	
>Altitude	M		INTEGER (02 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is $N \le a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all grater values of (a).

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Proposed chang	ge a	affects: \	JICC a	apps#	ME	Rac	dio A	ccess Networ	k X	Core Ne	etwork X
Title:	ж	Alignmen	t with 2	23.032 correct	<mark>ion of In</mark>	cluded	l Ang	le for Ellipsoi	d Arc		
Source:	ж	RAN3									
Work item code	:Ж	TEI4						<i>Date:</i> ೫	10/0	02/2004	
Category:	æ	Use <u>one</u> of F F (corr A (corr B (add C (fun D (edit	rection) respon lition of ctional torial m planatic	ds to a correctic feature), modification of f odification) ons of the above	on in an e feature)			Release: ₩ Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the fol (GSM (Relea (Relea (Relea (Relea (Relea	-	eases:

Reason for change: ೫	The semantic description for the Included Angle (in the Ellipsoid Arc) was changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval. Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines
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Summary of change: ₩	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$. Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
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	The impact can be considered isolated because it only affects the relation

	between the signalled value and the represented Included Angle.					
Consequences if not approved:	The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.					
Clauses affected:	策 9.2.3.11					
Other specs	Y N X Other core specifications % CR639 25.413 Rel-4, CR640 25.413 Rel-5, CR923 25.423 Rel-5, CR924 25.423 Rel-4, CR924 25.423 Rel-5, CR925 25.423 Rel-6, CR067 25.453 Rel-6, CR068 25.453 Rel-6					
affected:	X Test specifications X O&M Specifications					
Other comments:	ж ж					

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.3.11 Geographical Area

The *Geographical Area* IE is used to identify an area using geographical coordinates. The reference system is the same as the one used in [20].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Choice Geographical Area				
>Point			See below	Ellipsoid point
>Point With Uncertainty			See below	Ellipsoid point with uncertainty circle
>Polygon			See below	List of Ellipsoid points
>Ellipsoid point with uncertainty Ellipse			See below	Ellipsoid point with uncertainty Ellipse
>Ellipsoid point with altitude			See below	Ellipsoid point with altitude
>Ellipsoid point with altitude and uncertainty Ellipsoid			See below	Ellipsoid point with altitude and uncertainty Ellipsoid
>Ellipsoid Arc			See below	Ellipsoid Arc

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Point				
>Geographical Coordinates	М		See below	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Point With Uncertainty				
>Geographical Coordinates	M		See below	
>Uncertainty Code	M		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Polygon				
>Geographical	Μ	1 to	See below	
Coordinates		<maxnoofpoints></maxnoofpoints>		

Range bound	Explanation
maxnoofPoints	Maximum no. of points in polygon. Value is 15.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with uncertainty Ellipse				
>Geographical Coordinates	М		See below	
>Uncertainty Ellipse	M		See below	
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with altitude				
>Geographical Coordinates	М		See below	
>Altitude and direction	М		See below	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid point with altitude and uncertainty Ellipsoid				
>Geographical Coordinates	Μ		See below	
>Altitude and direction	Μ		See below	
>Uncertainty Ellipse	Μ		See below	
>Uncertainty Altitude	Μ		INTEGER(0127)	
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Ellipsoid Arc				
>Geographical Coordinates	М		See below	
>Inner radius	М		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
>Uncertainty radius	M		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$
>Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N≤< a <≤2(N+1)
>Confidence	М		INTEGER(0127)	

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates				
>Latitude Sign	М		ENUMERATED (North, South)	
>Degrees Of Latitude	М		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: $N \le 2^{23} X / 90 < N+1$ X being the latitude in degree (0° 90°)
>Degrees Of Longitude	М		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uncertainty Ellipse				
>Uncertainty semi-major	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Uncertainty semi-minor	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Orientation of major axis	М		INTEGER(0179)	The relation between the IE value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$. The values 90179 shall not be used.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Altitude and direction				
>Direction of Altitude	M		ENUMERATED (Height, Depth)	
>Altitude	M		INTEGER (02 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is $N \le a < N+1$, except for $N=2^{15}-1$ for which the range is extended to include all grater values of (a).

	CHANGE REQUEST		CR-Form-v7				
¥	25.423 CR 923 #rev - #	Current vers	^{ion:} <mark>4.11.0</mark> [#]				
For <u>HELP</u> or	For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <i>X</i> symbols.						
Proposed chang	e affects: UICC apps ೫ ME Radio Ac	cess Networ	k X Core Network				
Title:	# Alignment with 23.032 correction of Included Angle	e for Ellipsoi	d Arc				
Source:	業 RAN3						
Work item code:	光 TEI4	<i>Date:</i> ೫	10/02/2004				
Category:	 F Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release, B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	2	Rel-4 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)				

Reason for change: ೫	The semantic description for the Included Angle (in the Ellipsoid Arc) was
_	changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was
	consulted before the approval.
	Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to 360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
Summary of change: ℜ	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
	Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
	This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.
	This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.
	The impact can be considered isolated because it only affects the relation

	between the signalled value and the represented Included Angle.				
Consequences if not approved:	The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.				
Clauses affected:	€ 9.2.1.30E				
Other specs	Y N X Other core specifications X CR639 25.413 Rel-4, CR640 25.413 Rel-5, CR640 25.413 Rel-6, CR641 25.413 Rel-6, CR924 25.423 Rel-6, CR925 25.423 Rel-6, CR067 25.453 Rel-5, CR068 25.453 Rel-6				
affected:	X Test specifications				
	X O&M Specifications				

Other comments: Ж

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	М		9.2.1.30F	
Inner radius	M		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r$ < $5(N+1)$, except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$
Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N\leq a \leq 2(N+1)$
Confidence	М		INTEGER(0127)	

CHANGE REQUEST								CR-Form-v7	
æ		25.423	CR 924	жre	v -	ж	Current vers	ion: 5.8.	0 [#]
For <u>HELP</u> or	n u:	sing this fo	rm, see bottom of thi	is page	or look	at th	e pop-up text	over the X s	symbols.
Proposed chang	ye a	affects:	UICC apps೫	ME	Rad	dio A	ccess Networ	k X Core	Network
Title:	ж	Alignmen	t with 23.032 correct	tion of I	ncluded	l Ang	le for Ellipsoi	d Arc	
Source:	ж	RAN3							
Work item code:	: X	TEI4					<i>Date:</i> ೫	10/02/2004	4
Category:	ж	Use <u>one</u> of <i>F</i> (cor <i>A</i> (col <i>B</i> (add <i>C</i> (fun <i>D</i> (edd Detailed ex	the following categorie rection) rresponds to a correction dition of feature), actional modification of itorial modification) planations of the above 3GPP <u>TR 21.900</u> .	on in an feature)			2	Rel-5 the following I (GSM Phase (Release 199 (Release 199 (Release 199 (Release 4) (Release 5) (Release 5) (Release 6)	2) 16) 17) 18)

Reason for change: ೫	The semantic description for the Included Angle (in the Ellipsoid Arc) was changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval.
	Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to 360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from 2N≤ a ≤2(N+1) to 2N≤ a ≤2(N+1).
Summary of change: ೫	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
	Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
	This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.
	This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.
	The impact can be considered isolated because it only affects the relation
Summary of change: ೫	 (a) in degrees it describes is modified from 2N≤ a ≤2(N+1) to 2N≤ a ≤2(N+1) Impact assessment towards the previous version of the specification (same release): This CR has isolated impact towards the previous version of the specification (same release). This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc. This CR has an impact on implementations behaving according to TS 25.413 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.

		between the signalled value and the represented Included Angle.			
Consequences if not approved:	¥	The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.			
Clauses affected:	ж	9.2.1	.30E		
Other specs	æ	Y N X	Other core specifications	ж	CR639 25.413 Rel-4, CR640 25.413 Rel-5, CR641 25.413 Rel-6, CR923 25.423 Rel-4, CR925 25.423 Rel-6, CR067 25.453 Rel-5, CR068 25.453 Rel-6
affected:		Χ	Test specifications		
		X	O&M Specifications		

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Other comments:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.1.30E GA Ellipsoid Arc

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	М		9.2.1.30F	
Inner radius	М		INTEGER(02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for $N=2^{16}-1$ for which the range is extended to include all grater values of (r).
Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$
Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \leq a \leq 2(N+1)$
Confidence	М		INTEGER(0127)	

This IE contains one of the possible descriptions of a Cell Geographical Area.

							CR-Form-v7
		CHANG	E REQI	JEST	•		
ж	25.42	3 CR 925	жrev	_	Current vers	ion: 6.0.0	ж
			-			01010	
Ear HELP or	uning thin	form and hottom of th	hia naga ar l	ook ot th	o non un toxt	over the fl ov	mholo
	using this	form, see bottom of th	is page or it	JOK at th	e pop-up iexi	Over the a sy	TIDOIS.
Proposed chang	e affects:	UICC apps	ME	Radio A	ccess Networ	k X Core Ne	etwork
Title:	₩ <mark>Alignm</mark>	ent with 23.032 corre	ction of Inclu	ded Ang	le for Ellipsoid	d Arc	
Source:	₩ RAN3						
Work item code:	₩ TEI4				<i>Date:</i> ೫	10/02/2004	
Category:	₩ <mark>A</mark>				Release: ೫		
		of the following categor	ies:			the following rel	
	•	correction)				(GSM Phase 2)	
		corresponds to a correct	tion in an earli	er releas	,	(Release 1996)	
		addition of feature),	f f = = ((Release 1997)	
		unctional modification o	t teature)			(Release 1998)	
		editorial modification)				(Release 1999)	
		explanations of the abov	ve categories	can		(Release 4)	
	be found	in 3GPP <u>TR 21.900</u> .				(Release 5)	
					Rel-6	(Release 6)	

Reason for change: 第	The semantic description for the Included Angle (in the Ellipsoid Arc) was changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval.
	Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to 360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
Summary of change: ೫	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
	Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
	This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.
	This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.
	The impact can be considered isolated because it only affects the relation

		between the signalled value and the represented Included Angle.			
Consequences if not approved:	ж	The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.			
Clauses affected:	ж	9.2.1	.30E		
Other specs	ж	Y N X	Other core specifications	ж	CR639 25.413 Rel-4, CR640 25.413 Rel-5, CR641 25.413 Rel-6, CR923 25.423 Rel-4, CR924 25.423 Rel-5, CR067 25.453 Rel-5, CR068 25.453 Rel-6
affected:		X	Test specifications		
		X	O&M Specifications		

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Other comments:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.1.30E GA Ellipsoid Arc

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	М		9.2.1.30F	
Inner radius	М		INTEGER(02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for $N=2^{16}-1$ for which the range is extended to include all grater values of (r).
Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$
Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \leq a \leq 2(N+1)$
Confidence	М		INTEGER(0127)	

This IE contains one of the possible descriptions of a Cell Geographical Area.

æ	25.453 CR 067	Current versi	on: 5.8.0 ^ж					
For <u>HELP</u> or	using this form, see bottom of this page or look at the	pop-up text	over the X symbols.					
Proposed chang	e affects: UICC apps೫ ME Radio Acc	cess Networl	k X Core Network					
Title:	Hignment with 23.032 correction of Included Angle	ofor Ellipsoic	Arc					
Source:	RAN3							
Work item code:	₩ <mark>TEI4</mark>	<i>Date:</i> ೫	10/02/2004					
Category:	 F Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP <u>TR 21.900</u>. 	2 R96 R97 R98 R99 Rel-4 Rel-5	Rel-5 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5) (Release 6)					

Reason for change: ೫	The semantic description for the Included Angle (in the Ellipsoid Arc) was changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval.
	Since no correction has been made in RAN3 documents the semantic description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to 360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from 2N≤ a ≤2(N+1) to 2N≤ a ≤2(N+1).
Summary of change:	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
	Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
	This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.
	This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.
	The impact can be considered isolated because it only affects the relation
	positioning reporting.

	between the signalled value and the represented Included Angle.			
Consequences if not approved:	* The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.			
Clauses affected:	<mark>光 9.2.2.6</mark>			
Other specs	Y N X Other core specifications % CR639 25.413 Rel-4, CR640 25.413 Rel-5, CR641 25.413 Rel-5, CR641 25.413 Rel-6, CR923 25.423 Rel-4, CR924 25.423 Rel-4, CR925 25.423 Rel-6, CR925 25.423 Rel-6, CR068 25.453 Rel-6			
affected:	X Test specifications X O&M Specifications			
Other comments:	ж			

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.6 Geographical Area

Geographical Area IE is used to identify an area using geographical coordinates. The reference system is the same as the one used in [11].

3

Table 30

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Geographical Area				
>Point				Ellipsoid point
>>Geographical Coordinates	М		9.2.2.7	
>Point With Uncertainty				Ellipsoid point with uncertainty circle
>>Geographical Coordinates	М		9.2.2.7	
>>Uncertainty Code	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Polygon				List of Ellipsoid points
>>Polygon		1 <maxnoofpoints></maxnoofpoints>		
>>>Geographical Coordinates	Μ		9.2.2.7	
>Ellipsoid point with uncertainty Ellipse				
>>Geographical Coordinates	Μ		9.2.2.7	
>>Uncertainty Ellipse	Μ		9.2.2.30	
>>Confidence	М		INTEGER(0127)	
>Ellipsoid point with altitude				
>>Geographical Coordinates	Μ		9.2.2.7	
>>Altitude and direction	М		9.2.2.2	
>Ellipsoid point with altitude and uncertainty Ellipsoid				
>>Geographical Coordinates	М		9.2.2.7	
>>Altitude and direction	Μ		9.2.2.2	
>>Uncertainty Ellipse	М		9.2.2.30	
>>Uncertainty Altitude	М		INTEGER(0127)	
>>Confidence	М		INTEGER(0127)	
>Ellipsoid Arc	1		í í	
>>Geographical Coordinates	М		9.2.2.7	
>>Inner radius	M		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
>>Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>>Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$

	IE/Group Name	Presence	Range	IE type and reference	Semantics description
I	>>Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \leq a \leq 2(N+1)$
	>>Confidence	М		INTEGER(0127)	

Table 31

Range bound	Explanation
MaxnoofPoints	Maximum no. of points in polygon. Value is 15.

			CR-Form-v7
	CHANGE REQUEST		
ж	25.453 CR 068 #rev - # (Current vers	^{ion:} 6.3.0 [#]
For HELP or	using this form, see bottom of this page or look at the	pop-up text	over the X symbols.
Proposed chang	e affects: UICC apps೫ ME Radio Acc	cess Networ	k X Core Network
Title:	# Alignment with 23.032 correction of Included Angle	for Ellipsoi	d Arc
nue.	Alignment with 23.052 correction of included Align		
Source:	第 RAN3		
Work item code:	光 TEI4	<i>Date:</i> ೫	10/02/2004
Category:	₩ <mark>A</mark>	Release: ೫	Rel-6
	Use <u>one</u> of the following categories:		the following releases:
	F (correction)		(GSM Phase 2)
	A (corresponds to a correction in an earlier release)		(Release 1996)
	B (addition of feature),		(Release 1997)
C (functional modification of feature) R98 (Release 1998)			
D (editorial modification) R99 (Release 1999)			
	Detailed explanations of the above categories can		(Release 4)
	be found in 3GPP <u>TR 21.900</u> .		(Release 5)
		Rel-6	(Release 6)

Reason for change: ೫	The semantic description for the Included Angle (in the Ellipsoid Arc) was changed in December 2002 by CR03r2 to 23.032 in S2-023345. TSG RAN was consulted before the approval. Since no correction has been made in RAN3 documents the semantic
	description in RAN3 documents is not in line with the revised definition in 23.032. To align with the implemented corrections to 23.032 (Rel4) which now defines the following relation between the angle and the number: 2 N < ai <= 2 (N+1), Accepted values for ai are within the range from 0,01 to
	360 degrees. the included angle relation in the RANAP, RNSAP and PCAP semantics description needs to be modified from 2N≤ a <2(N+1) to 2N< a ≤2(N+1).
Summary of change: ೫	The formula defining the relation between the value (N) and the described angle (a) in degrees it describes is modified from $2N \le a \le 2(N+1)$ to $2N \le a \le 2(N+1)$.
	Impact assessment towards the previous version of the specification (same release):
	This CR has isolated impact towards the previous version of the specification (same release).
	This CR has no impact on implementations behaving according to TS 23.032 v410 (December 2002) for the Ellipsoid Arc.
	This CR has an impact on implementations behaving according to TS 25.413, 25.423 or 25.453 for the shape definition Ellipsoid Arc that can be used for positioning reporting.
	The impact can be considered isolated because it only affects the relation

	between the signalled value and the represented Included Angle.				
Consequences if not approved:	* The sematics description in RANAP, RNSAP and PCAP will not be in line with the description in 23.032 and thus not allow the representation of a full circle for the ellipsoid arc geographical shape.				
Clauses affected:	ected: # 9.2.2.6				
Other specs	Y N X Other core specifications X CR639 25.413 Rel-4, CR640 25.413 Rel-5, CR640 25.413 Rel-6, CR923 25.423 Rel-6, CR924 25.423 Rel-5, CR925 25.423 Rel-6, CR925 25.423 Rel-6, CR925 25.423 Rel-5,				
affected:	X Test specifications X O&M Specifications				
Other comments:	ж				

- 1) Fill out the above form. The symbols above marked **#** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <u>ftp://ftp.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

9.2.2.6 Geographical Area

Geographical Area IE is used to identify an area using geographical coordinates. The reference system is the same as the one used in [11].

Table 30

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Geographical Area				
>Point				Ellipsoid point
>>Geographical Coordinates	М		9.2.2.7	
>Point With Uncertainty				Ellipsoid point with uncertainty circle
>>Geographical Coordinates	М		9.2.2.7	
>>Uncertainty Code	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>Polygon				List of Ellipsoid points
>>Polygon		1 <maxnoofpoints></maxnoofpoints>		
>>>Geographical Coordinates	М		9.2.2.7	
>Ellipsoid point with uncertainty Ellipse				
>>Geographical Coordinates	М		9.2.2.7	
>>Uncertainty Ellipse	М		9.2.2.30	
>>Confidence	М		INTEGER(0127)	
>Ellipsoid point with altitude			, , , , , , , , , , , , , , , , , , ,	
>>Geographical Coordinates	М		9.2.2.7	
>>Altitude and direction	Μ		9.2.2.2	
>Ellipsoid point with altitude and uncertainty Ellipsoid				
>>Geographical Coordinates	М		9.2.2.7	
>>Altitude and direction	Μ		9.2.2.2	
>>Uncertainty Ellipse	Μ		9.2.2.30	
>>Uncertainty Altitude	М		INTEGER(0127)	
>>Confidence	М		INTEGER(0127)	
>Ellipsoid Arc			,	
>>Geographical Coordinates	М		9.2.2.7	
>>Inner radius	М		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is $5N \le r < 5(N+1)$, except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
>>Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^{k}-1)$
>>Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \le a < 2(N+1)$

IE/Group Name	Presence	Range	IE type and reference	Semantics description
>>Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is $2N \leq a \leq 2(N+1)$
>>Confidence	М		INTEGER(0127)	

Table 31

Range bound	Explanation
MaxnoofPoints	Maximum no. of points in polygon. Value is 15.