TSG RAN Meeting #20 **RP-030325**
Hämeenlinna, Finland, 3 - 6 June, 2003

Title **CRs (Rel-4 and Rel-5 Category A) to TS 25.423, 25.433 and 25.453 (Rel-5 and Rel-6 Category A) on GPS trigger condition**
Source **TSG RAN WG3**
Agenda Item **7.3.6**

RAN3 Tdoc	Spec	curr. Vers.	new Vers.	REL	CR	Rev	Cat	Title	Work item
R3-030646	25.423	4.8.0	4.9.0	REL-4	825	-	F	GPS trigger condition	TEI4
R3-030647	25.423	5.5.0	5.6.0	REL-5	826	-	A	GPS trigger condition	TEI4
R3-030648	25.433	4.8.0	4.9.0	REL-4	844	-	F	GPS trigger condition	TEI4
R3-030649	25.433	5.4.0	5.5.0	REL-5	845	-	A	GPS trigger condition	TEI4
R3-030650	25.453	5.5.0	5.6.0	REL-5	033	-	F	GPS trigger condition	TEI4
R3-030651	25.453	6.0.0	6.1.0	REL-6	034	-	A	GPS trigger condition	TEI4

3GPP TSG-RAN WG3 Meeting #36 **⌘R3-030646**
Se Marne la Vallée, Paris, France, 19th – 23th May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.423** **CR** **825** ⌘ **rev** **-** ⌘ Current version: **4.8.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	GPS trigger condition
Source:	⌘	RAN WG3
Work item code:	⌘	TEI4
Date:	⌘	19/05/03
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one 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 TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change: ⌘ The reference ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface", chapter 20.3.3.5.2.2 says: “All t_{oa} values in subframes 4 and 5 shall be the same for a given almanac data set and shall differ for successive data sets which contain changes in almanac parameters or SV health. ... The t_{oa} mismatch signifies that this WN_a may not apply to the almanac or interest and that the user must not apply almanac data until the pages with identical values of t_{oa} are obtained."; therefore an update of the trigger condition for “GPS Almanac” is necessary.

Chapter 20.3.3.5.2.4 says: ”The reference time for UTC data (t_{ot}) shall be referenced to the start of that week whose number (WN_t) is given in word eight of page 18 in subframe 4.”; therefore an update of the trigger condition for “GPS UTC Model” is necessary.

Summary of change: ⌘ Information Exchange Initiation Procedure text is updated with the correction on the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Consequences if not approved: ⌘ If this CR is not approved, the trigger condition for “GPS Almanac” and “GPS UTC Model” is incorrect.

Impact Analysis:
Impact assessment towards the previous version of the specification (same release):
This CR has isolated impact with the previous version of the specification (same release) because it just clarifies the trigger condition for “GPS Almanac” and “GPS UTC Model”.
This CR has an impact on the functional point of view.

	The impact can be considered isolated because the change affects one function namely the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Clauses affected:	⌘	8.5.6.2			
		Y	**N**		
Other specs	⌘	**X**		Other core specifications	⌘ CR826 25.423 Rel-5 CR844 25.433 Rel-4 CR845 25.433 Rel-5 CR033 25.453 Rel-5 CR034 25.453 Rel-6
affected:			**X**	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

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

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 ftp://ftp.3gpp.org/specs/ 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.

8.5.6 Information Exchange Initiation

8.5.6.1 General

This procedure is used by a RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.6.2 Successful Operation

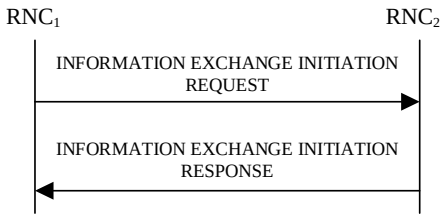

Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC_1 to RNC_2.

Upon receipt, the RNC_2 shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the RNC_2 shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the RNC_2 shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On –Modification", the RNC_2 shall report the requested information immediately and then shall initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC_2 shall initiate the Information Reporting procedure when any change in the parameters occurs.
- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC_2 shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the ~~t_ot~~ t_{ot} or WN_t parameter.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when a~~ny~~ change in the t_{oa} or WN_a parameter has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

Response message:

If the RNC_2 was able to determine the information requested by the RNC_1, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE REQUEST message. When the *Report Characteristics* IE is set to "On Demand" or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

/* partly omitted */

3GPP TSG-RAN WG3 Meeting #36 **⌘R3-030647**
Marne la Vallée, Paris, France, 19th – 23th May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.423** **CR** **826** ⌘ **rev** **-** ⌘ Current version: **5.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	GPS trigger condition		
Source:	⌘	RAn WG3		
Work item code:	⌘	TEI4	***Date:*** ⌘	19/05/03
Category:	⌘	**A**	***Release:*** ⌘	Rel-5

Use one 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 TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The reference ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface", chapter 20.3.3.5.2.2 says: "All t_{oa} values in subframes 4 and 5 shall be the same for a given almanac data set and shall differ for successive data sets which contain changes in almanac parameters or SV health. ... The t_{oa} mismatch signifies that this WN_a may not apply to the almanac or interest and that the user must not apply almanac data until the pages with identical values of t_{oa} are obtained."; therefore an update of the trigger condition for "GPS Almanac" is necessary. Chapter 20.3.3.5.2.4 says: "The reference time for UTC data (t_{ot}) shall be referenced to the start of that week whose number (WN_t) is given in word eight of page 18 in subframe 4."; therefore an update of the trigger condition for "GPS UTC Model" is necessary.
Summary of change:	⌘	Information Exchange Initiation Procedure text is updated with the correction on the trigger condition for "GPS Almanac" and "GPS UTC Model".
Consequences if not approved:	⌘	If this CR is not approved, the trigger condition for "GPS Almanac" and "GPS UTC Model" is incorrect. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because it just clarifies the trigger condition for "GPS Almanac" and "GPS UTC Model". This CR has an impact on the functional point of view.

	The impact can be considered isolated because the change affects one function namely the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Clauses affected:	⌘	8.5.6.2			
		Y	**N**		
Other specs	⌘	**X**		Other core specifications	⌘ CR825 25.423 Rel-4 CR844 25.433 Rel-4 CR845 25.433 Rel-5 CR033 25.453 Rel-5 CR034 25.453 Rel-6
affected:			**X**	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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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 ftp://ftp.3gpp.org/specs/ 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.

8.5.6 Information Exchange Initiation

8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.6.2 Successful Operation

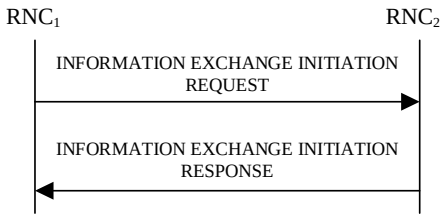

Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC_1 to RNC_2.

Upon receipt, the RNC_2 shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the RNC_2 shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the RNC_2 shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On Modification", the RNC_2 shall report the requested information immediately and then shall initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC_2 shall initiate the Information Reporting procedure when any change in the parameters occurs.
- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC_2 shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the ~~t_ot~~ t_{ot} or WN_t parameter.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when a~~ny~~ change in the t_{oa} or WN_a parameter has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC_2 shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

- If the *Information Type* IE is set to "Cell Capacity Class", the RNC_2 shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC_2 shall report the result of both uplink and downlink cell capacity information.

Response message:

If the RNC_2 was able to determine the information requested by the RNC_1, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE REQUEST message. When the *Report Characteristics* IE is set to "On Demand" or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

8.5.6.2.1 Successful Operation for Iur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from BSS_1 to BSS_2/RNC_2 or by RNC_1 to BSS_2.

Upon receipt, the BSS_2/RNC_2 shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics on Iur-g:

If the *Information Type Item* IE is set to "Cell Capacity Class", the RNC_2/BSS_2 shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

/* partly omitted */

3GPP TSG-RAN WG3 Meeting #36 **⌘R3-030648**
Marne la Vallée, Paris, France, 19th – 23th May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.433** **CR** **844** ⌘ **rev** **-** ⌘ Current version: **4.8.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	GPS trigger condition
Source:	⌘	RAN WG3
Work item code:	⌘	TEI4
Date:	⌘	19/05/03
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one 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 TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The reference ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface", chapter 20.3.3.5.2.2 says: "All t_{oa} values in subframes 4 and 5 shall be the same for a given almanac data set and shall differ for successive data sets which contain changes in almanac parameters or SV health. ... The t_{oa} mismatch signifies that this WN_a may not apply to the almanac or interest and that the user must not apply almanac data until the pages with identical values of t_{oa} are obtained."; therefore an update of the trigger condition for "GPS Almanac" is necessary. Chapter 20.3.3.5.2.4 says: "The reference time for UTC data (t_{ot}) shall be referenced to the start of that week whose number (WN_t) is given in word eight of page 18 in subframe 4."; therefore an update of the trigger condition for "GPS UTC Model" is necessary.
Summary of change:	⌘	Information Exchange Initiation Procedure text is updated with the correction on the trigger condition for "GPS Almanac" and "GPS UTC Model".
Consequences if not approved:	⌘	If this CR is not approved, the trigger condition for "GPS Almanac" and "GPS UTC Model" is incorrect. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because it just clarifies the trigger condition for "GPS Almanac" and "GPS UTC Model". This CR has an impact on the functional point of view.

	The impact can be considered isolated because the change affects one function namely the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Clauses affected:	⌘	8.2.26.2			
		Y	**N**		
Other specs	⌘	**X**		Other core specifications	⌘ CR825 25.423 Rel-4 CR826 25.423 Rel-5 CR845 25.433 Rel-5 CR033 25.453 Rel-5 CR034 25.453 Rel-6
affected:			**X**	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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8.2.26 Information Exchange Initiation

8.2.26.1 General

This procedure is used by a CRNC to request the initiation of information provisioning from a Node B.

8.2.26.2 Successful Operation

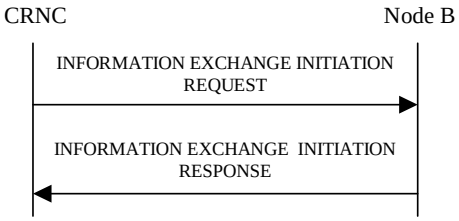

Figure 27L: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with the INFORMATION EXCHANGE INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall provide the requested information according to the *Information Type Item* IE. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics
The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the Node B shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the Node B shall immediately report the requested information and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested reporting frequency.

If the *Information Report Characteristics* IE is set to "On Modification", the Node B shall immediately report the requested information and then shall initiate the Information Reporting procedure in accordance to the following conditions related to the *Information Type* IE:

1) If the *Information Type Item* IE is set to "DGPS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.

2) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Time Recovery", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.

3) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

4) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the ~~t_ot~~t_{ot} or WN_t parameter.

5) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a~~ny~~ change in the t_{oa} or WN_a parameter has occurred.

6) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

Response message
If the Node B was able to initiate the information provision requested by the CRNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message. When the *Report Characteristics* IE is set to "On Demand" or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data.

/* partly omitted */

3GPP TSG-RAN WG3 Meeting #36 **⌘R3-030649**
Marne la Vallée, Paris, France, 19th – 23th May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.433** **CR** **845** ⌘ **rev** **-** ⌘ Current version: **5.4.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	GPS trigger condition	
Source:	⌘	RAN WG3	
Work item code:	⌘	TEI4	***Date:*** ⌘ 19/05/03
Category:	⌘	**A**	***Release:*** ⌘ Rel-5

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
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Detailed explanations of the above categories can be found in 3GPP TR 21.900.

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Rel-6	*(Release 6)*

Reason for change:	⌘	The reference ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface", chapter 20.3.3.5.2.2 says: "All t_{oa} values in subframes 4 and 5 shall be the same for a given almanac data set and shall differ for successive data sets which contain changes in almanac parameters or SV health. ... The t_{oa} mismatch signifies that this WN_a may not apply to the almanac or interest and that the user must not apply almanac data until the pages with identical values of t_{oa} are obtained."; therefore an update of the trigger condition for "GPS Almanac" is necessary. Chapter 20.3.3.5.2.4 says: "The reference time for UTC data (t_{ot}) shall be referenced to the start of that week whose number (WN_t) is given in word eight of page 18 in subframe 4."; therefore an update of the trigger condition for "GPS UTC Model" is necessary.
Summary of change:	⌘	Information Exchange Initiation Procedure text is updated with the correction on the trigger condition for "GPS Almanac" and "GPS UTC Model".
Consequences if not approved:	⌘	If this CR is not approved, the trigger condition for "GPS Almanac" and "GPS UTC Model" is incorrect. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because it just clarifies the trigger condition for "GPS Almanac" and "GPS UTC Model". This CR has an impact on the functional point of view.

	The impact can be considered isolated because the change affects one function namely the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Clauses affected:	⌘	8.2.26.2			
		Y	**N**		
Other specs	⌘	**X**		Other core specifications	⌘ CR825 25.423 Rel-4 CR826 25.423 Rel-5 CR844 25.433 Rel-4 CR033 25.453 Rel-5 CR034 25.453 Rel-6
affected:			**X**	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

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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 ftp://ftp.3gpp.org/specs/ 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.

8.2.26 Information Exchange Initiation

8.2.26.1 General

This procedure is used by a CRNC to request the initiation of information provisioning from a Node B.

8.2.26.2 Successful Operation

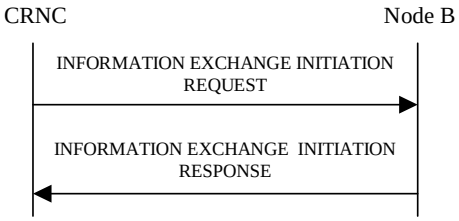

Figure 27L: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with the INFORMATION EXCHANGE INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall provide the requested information according to the *Information Type Item* IE. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics
The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the Node B shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the Node B shall immediately report the requested information and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested reporting frequency.

If the *Information Report Characteristics* IE is set to "On Modification", the Node B shall immediately report the requested information and then shall initiate the Information Reporting procedure in accordance to the following conditions related to the *Information Type* IE:

1) If the *Information Type Item* IE is set to "DGPS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.

2) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Time Recovery", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.

3) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

4) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the ~~t_ot~~t_{ot} or WN_t parameter.

5) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a~~ny~~ change in the t_{oa} or WN_a parameter has occurred.

6) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.

Response message
If the Node B was able to initiate the information provision requested by the CRNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message. When the *Report Characteristics* IE is set to "On Demand" or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data.

/* partly omitted */

3GPP TSG- RAN WG3 Meeting #36 **⌘R3-030650**
Marne la Vallée, Paris, France, 19th – 23th May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.453** **CR** **033** ⌘ **rev** **-** ⌘ Current version: **5.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	GPS trigger condition		
Source:	⌘	RAN WG3		
Work item code:	⌘	TEI4	***Date:*** ⌘	19/05/03
Category:	⌘	**F**	***Release:*** ⌘	Rel-5

Use one 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 TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The reference ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface", chapter 20.3.3.5.2.2 says: "All t_{oa} values in subframes 4 and 5 shall be the same for a given almanac data set and shall differ for successive data sets which contain changes in almanac parameters or SV health. ... The t_{oa} mismatch signifies that this WN_a may not apply to the almanac or interest and that the user must not apply almanac data until the pages with identical values of t_{oa} are obtained."; therefore an update of the trigger condition for "GPS Almanac" is necessary. Chapter 20.3.3.5.2.4 says: "The reference time for UTC data (t_{ot}) shall be referenced to the start of that week whose number (WN_t) is given in word eight of page 18 in subframe 4."; therefore an update of the trigger condition for "GPS UTC Model" is necessary.
Summary of change:	⌘	Information Exchange Initiation Procedure text is updated with the correction on the trigger condition for "GPS Almanac" and "GPS UTC Model".
Consequences if not approved:	⌘	If this CR is not approved, the trigger condition for "GPS Almanac" and "GPS UTC Model" is incorrect. Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because it just clarifies the trigger condition for "GPS Almanac" and "GPS UTC Model". This CR has an impact on the functional point of view.

	The impact can be considered isolated because the change affects one function namely the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Clauses affected:	⌘	8.3.2			
		Y	**N**		
Other specs	⌘	**X**		Other core specifications	⌘ CR825 25.423 Rel-4 CR826 25.423 Rel-5 CR844 25.433 Rel-4 CR845 25.433 Rel-5 CR034 25.453 Rel-6
affected:			**X**	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:

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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 ftp://ftp.3gpp.org/specs/ 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.

8.3 Information Exchange Initiation

8.3.1 General

This procedure is used by a RNC to request the initiation of an information exchange with a SAS.

This procedure uses the signalling bearer connection for the Information Exchange Context.

8.3.2 Successful Operation

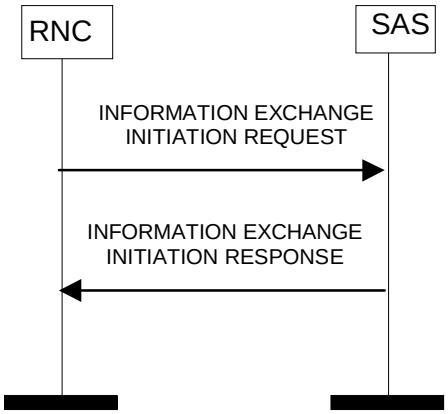

Figure 3: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC to SAS.

If the *Information Type* IE is set to 'Implicit', the SAS is responsible for selecting the type of assistance data.

Upon reception, the SAS shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to 'On-Demand', the SAS shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the SAS shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested report frequency.

If the *Information Report Characteristics* IE is set to "On-Modification", the SAS shall report the requested information immediately and then shall initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Almanac and Satellite Health", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change in the t_{oa} or WN_a parameter has occurred in almanac/health information for at least one visible satellite.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "UTC Model", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change in the t_{ot} or WN_t parameter has occurred in the GPS UTC model.

  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

- If the *Information Type* IE is set to 'Explicit' and the *Explicit Information Item* IE includes "Ionospheric Model", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the GPS ionospheric model.

  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Navigation Model", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the clock/ephemeris information for at least one visible satellite or in the list of visible satellites.

  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "DGPS Corrections", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the quality of the DGPS corrections information for at least one visible satellite or in the list of visible satellites.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Reference Time", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the time-of-week assistance information for at least one visible satellite or in the list of visible satellites.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Acquisition Assistance", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in acquisition assistance information for at least one visible satellite or in the list of visible satellites.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Real Time Integrity", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the real-time integrity status of at least one visible satellite.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Almanac and Satellite Health SIB", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in almanac/health information for at least one visible satellite.

  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

Response message:

If the SAS was able to determine the information requested by the RNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message.

When the response message includes data to be reported (see above), the SAS shall include at least one IE in the *Requested Data Value* IE.

/* partly omitted */

3GPP TSG- RAN WG3 Meeting #36 **⌘R3-030651**
Marne la Vallée, Paris, France, 19th – 23th May 2003

CR-Form-v7

CHANGE REQUEST

⌘ **25.453** **CR** **034** ⌘ **rev** **-** ⌘ Current version: **6.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	GPS trigger condition	
Source:	⌘	RAN WG3	
Work item code:	⌘	TEI4	***Date:*** ⌘ 19/05/03
Category:	⌘	**A**	***Release:*** ⌘ Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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Rel-4	*(Release 4)*
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Reason for change: ⌘ The reference ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface", chapter 20.3.3.5.2.2 says: “All t_{oa} values in subframes 4 and 5 shall be the same for a given almanac data set and shall differ for successive data sets which contain changes in almanac parameters or SV health. ... The t_{oa} mismatch signifies that this WN_a may not apply to the almanac or interest and that the user must not apply almanac data until the pages with identical values of t_{oa} are obtained."; therefore an update of the trigger condition for “GPS Almanac” is necessary.

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Summary of change: ⌘ Information Exchange Initiation Procedure text is updated with the correction on the trigger condition for “GPS Almanac” and “GPS UTC Model”.

Consequences if not approved: ⌘ If this CR is not approved, the trigger condition for “GPS Almanac” and “GPS UTC Model” is incorrect.

Impact Analysis:
Impact assessment towards the previous version of the specification (same release):
This CR has isolated impact with the previous version of the specification (same release) because it just clarifies the trigger condition for “GPS Almanac” and “GPS UTC Model”.
This CR has an impact on the functional point of view.

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Clauses affected:	⌘	8.3.2			
		Y	**N**		
Other specs	⌘	**X**		Other core specifications	⌘ CR825 25.423 Rel-4 CR826 25.423 Rel-5 CR844 25.433 Rel-4 CR845 25.433 Rel-5 CR033 25.453 Rel-5
affected:			**X**	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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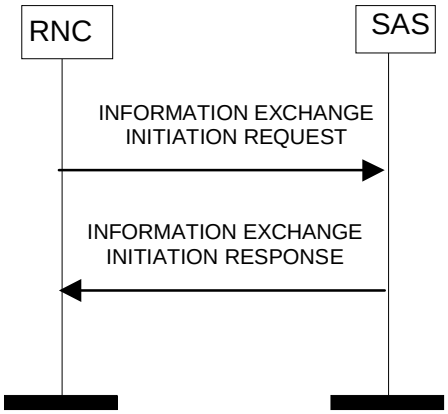

Figure 3: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC to SAS.

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If the *Information Report Characteristics* IE is set to "On-Modification", the SAS shall report the requested information immediately and then shall initiate the Information Reporting procedure in accordance to the following conditions:

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- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "UTC Model", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change in the t_{ot} or WN_t parameter has occurred in the GPS UTC model.

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  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Navigation Model", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the clock/ephemeris information for at least one visible satellite or in the list of visible satellites.

  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "DGPS Corrections", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the quality of the DGPS corrections information for at least one visible satellite or in the list of visible satellites.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Reference Time", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the time-of-week assistance information for at least one visible satellite or in the list of visible satellites.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Acquisition Assistance", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in acquisition assistance information for at least one visible satellite or in the list of visible satellites.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Real Time Integrity", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in the real-time integrity status of at least one visible satellite.

- If the *Information Type* IE is set to "Explicit" and the *Explicit Information Item* IE includes "Almanac and Satellite Health SIB", the SAS shall initiate the Information Reporting procedure for this specific Explicit Information Type when a change has occurred in almanac/health information for at least one visible satellite.

  - If the *Transmission TOW Indicator* IE is set to "requested", then the SAS shall include the *GPS Transmission TOW* IE in the INFORMATION REPORT message.

Response message:

If the SAS was able to determine the information requested by the RNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message.

When the response message includes data to be reported (see above), the SAS shall include at least one IE in the *Requested Data Value* IE.

/* partly omitted */