

Agenda Item: -
Source: Secretary
Title: Revised minutes of WG1 #16 meeting
Document for: Approval

Revised Minutes for 3GPP TSG-RAN WG1 16th Meeting

Meeting start: October 10th, 2000, in Pusan, Korea

Day 1, started at 09.04

1. Opening of the meeting

The chairman, Mr. Antti Toskala (Nokia), opened the meeting.
On behalf of Hosting (LG Electronics & Samsung) companies LG Electronics welcomed the meeting.

2. Approval of agenda (R1-00-1228)

Chairman made a brief introduction of the agenda on the screen.
This was the revision of **R1-00-1206**.

There was one comment that Ah21 should be postponed to Day2 afternoon or Day3 due to the status of the documents preparation. Chairman agreed to this comment and answered that we were to check first those working CRs which were postponed at the end of the last meeting. (See Section 7)

Agenda was approved with no comments. (09:15)

3. Report from TSG RAN #9 (R1-00-1229) (09:16 – 09:44)

(Though the PPT file name and T-doc number on the slide were wrongly put as R1 -00-1129, **R1-00-1229** is the correct T-doc number.)

Chairman reported the results and status of TSG RAN #9.

1. All Release -99 CRs Approved

- No discussions on any of them
- The CR 25.211-059 (**R1-00-0792**) which had been put on hold in RAN #8, was now rejected.
(We have another CR which takes care of this issue.)

2. Release-4 / Release-5 issues

1) DPCCH Gating

- TR 25.840 was presented to RAN for information.
- The milestone was set to March, 2001.
- Guidance was given that the focus should also be put on the interference reduction aspect.
- Other WGs are expected to work on it.
Once we have treated this topic we need to provide the update of this TR together with LS.

2) Radio Link Performance Enhancements (1)

- WI sheet for DSCH power control improvement in soft handover was agreed with the milestone set to March, 2001
- TR 25.841 was presented to RAN for information.

3) Radio Link Performance Enhancements (2)

- This study item was made as a permanent study item to be repeated for each release, which means if we have topics which would fit under this study item, there is no need to provide yearly work item / study item sheets. (they are automatically renewed in RAN.)
- Milestone for other topics which would come up under this study item is set at December, 2001 (RAN #14) for release 5. On a individual item if its target is Release 5, then conclusions must be reached naturally earlier, i.e. at the latest by September, 2001 (RAN#13) and a Work Item would need to be created.

4) TDD Node B Synchronisation

- The TR 25.836 was provided for information (topic was not really discussed.)
 - The milestone was set to March, 2001
- 5) **Uplink Synchronous Transmission**
- The milestone for the study report is set for March, 2001
- Chairman stated his personal view on this subject as follows.
- Regardless what the outcome of the study is, we should prepare some sort of report of this item in any cases because this has been on the table and even a part in the specifications even earlier. Some kind of conclusion would be needed.
- From the specification point of view this is for release 5, but the study report should be completed by March, 2000.
- 6) **1.28 Mcps UTRA TDD**
- TR 25.928 was provided for information
 - Strong opinions were raised by the several operators that the 1.28 Mcps/s UTRA TDD should be better aligned with 3.84 Mcps/s UTRA TDD using similar slot/frame structure for co-existence in adjacent band.
 - WG4 is tasked to study the issue (adjacent channel at least) with priority.
 - WG1 is to wait for WG4 outcome before conclusions on the 1.28 Mcps slot/frame structure
 - It was noted in TSG RAN that TR cannot be considered finalized with this potential issue on the slot/frame structure.
- 7) **Smart Antennas**
- TR 25.842 was provided for information
 - The WI was modified to address the TDD specs as nothing new to be done had been identified on FDD side up to the last RAN. The WI was modified to address 1.28Mcps/s TDD only.
 - The milestone was set to March, 2001
- 8) **Other Topics**
- Hybrid ARQ milestone shifted June, 2001 for the TR.
 - In WG1 TR is to be considered to cover the issues like impacts to the channel coding and multiplexing chain.
 - Improved cell FACH state
 - Study report milestone was set to March, 2001, no action is expected from WG1 at this point.
 - Positioning
 - RAN concluded that use of compressed mode with location specific measurements is not Release-99 issue.
- 9) **High Speed Downlink Packet Access (HSDPA) work allocation to RAN WGs (from RAN WG2 report)**
- *RAN WG1:*
 - ? Adaptive Modulation and Coding
 - ? H-ARQ - link performance of different schemes (impacts to the channel coding and multiplexing chain are included.)
 - ? Frame size
 - ? Reverse control channel - frame formats, need for multiple DPCH.
 - ? Implications on mobile station requirements.
 - ? Simulation assumptions for link and system simulations.

Those studies should be included in our own Technical Report as well as link and system level simulations. The milestone for the feasibility study report was set to March, 2001.
 - *RAN WG2:*
 - ? Protocol architecture.
 - ? H-ARQ - protocol, messaging, etc.
 - ? Fast cell selection.
 - *RAN WG4:* (as a conclusion of RAN discussion)
 - ? Implementation aspects of higher order modulation

4. Identification of the incoming liaison statements and actions in the answering

No.	Title	Source	To/Cc	Tdoc No.	Discussed in	Notes
1	Proposed liaison on: FDD RACH/PRACH modelling	R3 SWG	CC	R1-00-1176 (R3-002343)	Plenary	Noted (*1) <small>Day 1 09:52</small>
2	Timeslot ISCP for TDD Node B downlink power control	R3	TO	R1-00-1177 (R3-002364)	Plenary	Siemens will draft an answer. (*2) <small>Day 1 09:56</small>
3	Response to Liaison Statement on "TFCI in the case of invalid set of transport blocks and during DPCH synchronisation"	R3	TO	R1-00-1178 (R3-002367)	Plenary	Noted (*3) <small>Day 1 09:56</small>
4	Response to LS on TDD Node B synchronisation	R3	TO	R1-00-1179 (R3-002368)	Plenary	Noted (*4) <small>Day 1 10:03</small>
5	Answer LS on issues related to UE timing	R4	TO	R1-00-1203 (R4-000717)	Plenary	Noted (*5) <small>Day 1 10:19</small>
6	LS on cell synchronisation accuracy requirement for TDD	R4	TO	R1-00-1204 (R4-000722)	Plenary	Noted (*6) <small>Day 1 10:23</small>
7	UTRAN RSSI	R4	TO	R1-00-1205 (R4-000743)	Plenary	Noted (*7) <small>Day 1 10:26</small>
8	Proposed response to LS on compressed mode for measurement purpose "other"	R4	TO	R1-00-1303 (R4-000681)	Plenary	Noted (*8) <small>Day 3 17:48</small>

(*1) Mr. Dirk Gerstenberger (Ericsson) presented this LS.

In this LS, RAN WG3 has asked RAN WG2 to clarify the current situation around PRACH/RACH and the possible consequences for the Iub information transport because RAN WG3 became aware that several additions had been made to PRACH/RACH modelling in WG2 and they wanted to know the impact of those additions on their specifications.

Mr. Dirk Gerstenberger added that there would be some discussion in RAN WG2 regarding the clarification of PRACH/RACH model.

Chairman concluded that then we should wait for the answer from RAN WG2 expecting they should CC to us and they would not surprise us from our point of view.

(*2) Mr. Stefan Oestreich (Siemens) presented this LS.

This was an answer LS to the LS which had been sent out from us to RAN WG3 in which we requested RAN WG3 to include ' *Time slot ISCP measurement* ' in the report from the RNC to the Node B in order to be able to use it for the power control in Node B. RAN WG3 had some concerns about this measurement wanted some clarification about the use of this measurements in Node B. They gave us a list of questions. " *Does WG1 regard the inclusion of this functionality as important for Rel. 99?* ", etc.

Siemens would produce answer LS to RAN WG3. Chairman encouraged interested people to join in drafting.

This answer LS was made in **R1-00-1239**. This was reviewed and approved on Day 4 (See No. 110)

(*3) This was the answer LS to **R1-00-1146** which had been sent out from RAN WG1 #15.

They answered

"In R99, the node B does not have the knowledge of whether the UE is in soft handover or not. As a consequence, RAN WG3 cannot see any problem with the current specification (TS25.427 Ver3.3.0) for DL transmission."

Mr. Tim Mouldsley (Philips) commented that we still needed to have some work on this issue and Philips had one contribution addressing this issue. (**R1-00-1201**, See No.15, 16)

Chairman concluded that this was noted and no action was expected (at least from LS perspective.)

(*4) Mr. Stefan Oestreich (Siemens) presented this LS.

This was an answer to the LS (**R1-00-0964**) sent from us to RAN WG3 in which we had identified some work that should be done in RAN WG3 for Node B synchronization. Their answer in the LS was in line with us. They also provided answers to our questions regarding " *Cell sync or Node B sync* " and " *sync port* " as well.

(*5) Mr. Serge Willenegger (QUALCOMM) presented this LS.

This was an answer to the LS (**R1-00-1163**) sent from us to RAN WG4.

Mr. Serge Willenegger stated that in RAN WG2 there had been a discussion about the option / mandatory issue on Type2 measurement in Rx-Tx time difference measurement.

Chairman commented that perhaps there should be some clarification put actually for the core specification like TS 25.215 or TS 25.225 regarding Type 2 measurement. Of course we need to ensure when we do this to be in line with RAN WG2.

Mr. Serge Willenegger would produce this clarification type CR regarding Type1 and Type2 to TS 25.215.

(This CR was contained in **R1-00-1301** (CR 25.215-078) and reviewed on Day 4. (See No 94). It was agreed in principle but received one comment and set to be revised in **R1-00-1318**. The revision was not reviewed due to the lack of time.)

Mr. Tim Mouldsley (Philips) commented on point 2 regarding PC combing that there is slight inconsistency between first sentence and second sentence. Should we as RAN WG1 specify something in layer 1 specifications which deals with the case in which the power control loop delay increases ?

Chairman answered as his personal view that we should leave this open and maybe address the issue for the later release if necessary because if we go into quite small implementation details or if we put "shall" according to the worst capability then it would be very difficult to verify what we are doing in practice and it is not good either from the overall performance point of view. The different manufactures would have different capabilities.

(*6) Mr. Stefan Oestreich (Siemens) presented this LS.

This was an answer to the LS (**R1-00-0606**) sent from us to RAN WG4 in which we had requested RAN WG4 to consider the minimum accuracy requirements for Node B synchronization. RAN WG4 had provided answer for our request and they requested that their answer should be reflected in our technical report.

Chairman commented that we should have a small discussion just to ensure that the method we have has at least theoretical possibility to meet such accuracy requirements.

(*7) Mr. Dirk Gerstenberger (Ericsson) presented this LS.

RAN WG4 proposed to change the name of RSSI to "*received total wide band power*" and they provided new definition of that.

The wide-band received power including the internally generated noise in the BS, within the UTRAN uplink carrier channel bandwidth in an UTRAN access point. In case of BS with receiver diversity the reported value shall be the linear average of the power in the diversity branches.

Mr. Dirk Gerstenberger stated that Ericsson had already prepared CR (**R1-00-1191** CR 25.215-075) for this change in RAN WG1 specification.

This CR was reviewed in succession. (See No. 9)

(*8) This LS was sent on Day3 afternoon by RAN WG4 secretary. This was an answer LS to **R1-00-1128** which we had sent in the previous meeting. This was reviewed in conjunction with **R1-00-1291** (CR 25.215-069r3)

(See No.48). A kind of response was made in **R1-00-1281** and approved in **R1-00-1311** on Day3. (See No.103)

5. Change Requests for WG1 Release –99 specifications (Part I)

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
9	075	-	25.215	R1-00-1191	Definition of UTRAN RSSI	F	Ericsson	To be Revised	(*1) <small>11:26</small>
10	079	-	25.211	R1-00-1187	Clarification of downlink phase reference	F	Ericsson	To be Revised	(*2) <small>12:23</small>
11	084	-	25.211	R1-00-1194	Clarification of figure 28	F	Ericsson NEC	Approved	No (*3) Comment <small>12:27</small>
12	131	-	25.214	R1-00-1197	Clarification of descriptions of power control preambles	F	Philips	Approved	(*4) <small>14:01</small>
13	080	-	25.211	R1-00-1197	Clarification of descriptions of power control preambles	F	Philips	Approved	(*4) <small>14:01</small>
14	-	-	-	R1-00-1198	UE transmit timing in soft handover	-	Philips	Postponed	(*5) <small>14:33</small>
15	083	-	25.211	R1-00-1201	TFCI in the case of invalid transport blocks	F	Philips	To be revised	(*6) <small>15:15</small>
16	095	-	25.212	F1-00-1201	TFCI in the case of invalid transport blocks	F	Philips	To be revised	(*6) <small>15:15</small>
17	094	-	25.212	R1-00-1188	Correction of BTFD limitations	F	Ericsson	To be revised	(*7) <small>16:12</small>
18	133	-	25.214	R1-00-1213	Correction of RACH/CPCH physical random access procedure	F	Panasonic	Approved	No Comment <small>16:18</small>
19	134	-	25.214	R1-00-1214	Correction of uplink power control algorithm 2	F	Panasonic Philips	Approved	(*8) <small>16:32</small>
20	128	1	25.214	R1-00-1226	Clarification of downlink quality measurement in SSdT	F	NEC	Postponed	(*9) <small>16:37</small>
21	129	-	25.214	R1-00-1183	Formula typography and reference corrections	F	Siemens	Approved	No Comment <small>16:58</small>
22	135	-	25.214	R1-00-1215	TPC command generation on downlink during RLS initialisation	F	Siemens	Postponed	(*10) <small>17:13</small>
23	132	-	25.214	R1-00-1207	Uplink power control in compressed mode	F	Siemens Alcatel	Approved	(*11) <small>17:18</small>
24	136	-	25.214	R1-00-1243	Clarification of RACH behaviour at maximum and minimum power	F	Siemens	To be revised	(*12) <small>17:29</small>
25	130	-	25.214	R1-00-1189	Radio link establishment and sync status reporting	F	Ericsson	To be revised	(*13) <small>17:43</small>
26	-	-	-	R1-00-1230	Clarifications for system options with AICH and PICH	-	Nokia	Discussed	(*14) <small>18:02</small>

(*1) Mr. Alexander Lax (3G.com) commented

- The word "internally" should be removed.

- How can we measure the receiver internal noise included with the reference point being antenna connector ?

Mr. Dirk Gerstenberger (Ericsson) agreed to remove "internally".

Chairman proposed to accept this new definition (without "internally") and put it forward other WGs and inquire still RAN WG4 what their understanding of the reference point is and how we should formulate this.

Mr. Serge Willenegger (QUALCOMM) pointed that in TS 25.104 Section 7 *Receiver Characteristics*, there was a description of reference point in figure 7.1 and according to that *test port A* would usually be used unless otherwise stated.

Mr. Ville Steudle (Nokia) questioned whether it was agreed to use the proposed descriptive name of measurement or there would be a kind of new abbreviation. \approx No abbreviation right now.

Mr. Tim Mousley (Philips) commented that the word "carrier" should be removed from sentence of " *within the UTRAN uplink carrier channel bandwidth in an UTRAN access point* "

Mr. Stefan Oestreich (Siemens) questioned whether this modification should be applied the UE measurement (UTRAN carrier RSSI) or not ?

Mr. Dirk Gerstenberger suggested that we should put these questions in the LS to RAN WG4.

There was one more comment on the meaning of the term "linear average". Chairman suggested that this should also be asked in the LS as well.

Conclusion :

1. The update of this CR (removing "internally" and "carrier") should be created.
The update should not touch the reference point. We should create a separate CR for the reference point if needed. (The revision can be found in **R1-00-1251** and approved on Day2 afternoon (See No.29))
 2. The similar CR should be produced for TDD.
(This can be found in **R1-00-1253** CR 25.225-019. This was approved on Day3. (See No.50))
 3. The LS containing questions should be produced.
(Draft LS is in **R1-00-1252** and this was approved in **R1-00-1290**. (See No.99))
- (*2) This CR proposed to clarify in TS 25.211 that RRC can signal that the UE shall not use the P-CPICH as phase reference for a downlink DPCH or S-CCPCH and that in those cases the dedicated pilots of downlink DPCH or the pilots of the S-CCPCH may be used as phase reference for the DPCH of this radio link or for the S-CCPCH respectively and hence, the dedicated pilots can always be used as phase reference for a downlink DPCH or S-CCPCH.
Concerning section 5.3.3.1.1 and 5.3.3.1.2, there was a long discussion made regarding the term "*phase reference*" and "*channel estimation*".
- Like in TS 25.331, "*channel estimation*" should be used.
 - There would be inconsistency between layer1 and layer2 specifications.
 - "*Phase reference*" is much more appropriate than "channel estimation".
 - The concept of "*phase reference*" is unclear.
- After some discussion, Ericsson agreed to do some rewording and chairman suggested an offline discussion with the interested party. In course of the discussion, it was mentioned several times that we should liaise with RAN WG2 and RAN WG4, but finally chairman stated that we should decide it after having a look at the revision in terms of inconsistency.
The revision was made into **R1-00-1258**. (See No. 32). Eventually LS was not produced.
- (*3) This CR proposed to clarify that in figure 28, e.g. "k:th S-CCPH" refers to the k:th S-CCPCH *physical channel* and not to the k:th radio frame of any S-CCPCH. Since there had been some misunderstanding in figure 28. The same was the case for the n:th DPCH.
- /***/ Lunch break 11:30-13:45 ***/
- (*4) It had been suggested that the current descriptions of power control preambles could be misunderstood at RAN WG1 #15 and there also had been quite a lot of discussion on the reflector on this topic, however no complete conclusion was reached. This CR aimed to make the descriptions clearer in TS 25.214 and TS 25.211. These changes were all intended as clarifications and no functional modification was implied. (≠ No need to liaise with other working groups.)
Ms. Sarah Boumendil (Nortel) questioned regarding the change just above section 5.3.2 in the TS 25.211 part why the sentence "*Both the UL and DL DPCHs shall be transmitted during the power control preamble.*" should be removed.
- ≠ This CR is trying to remove the description of DL power control preamble altogether
 - ≠ Some comments had been made on this that it seems to be slightly confusing to consider downlink power control preamble in addition to DPCH.
- (*5) This was not CR but introductory paper for the CRs contained **R1-00-1199** and **R1-00-1200**. This paper continued the discussion originally pointed out in **R1-00-1100**, "*UE timing related issues*" (QUALCOMM) regarding the combined effect of UL Tx timing reference and the valid window for DL Rx timing which together can cause the UE transmit timing to slew continuously. 3 alternative solutions were proposed to the problem of continually-slewing UE timing and continuous reporting of downlink signals as out-of-range.
- Option (1) proposed in R1-00-1100 does not solve the problem if the reporting range is asymmetric.
 - Option (2) gives flexibility to the UE to solve the problem, but does not fully specify how the UE should calculate the required offset. The maximum value of ? could be (256-20) chips in the worst case. Any particular value is not to be specified.
 - Option (3) specifies a formula by which the offset can be calculated to solve the problem.
- Some discussion was made regarding the introduction of the equation taking into account the RAN WG4 matters. Based on the discussion chairman proposed that we should put this on-hold now. Interested companies should make papers on this issue in the next RAN WG4 meeting which would be held one week prior to our next meeting. And then we could come back to this depending on the discussion in RAN WG4. This could give people time to go through the equation whether it does work or whether there is any problem in terms of implementation because we have to do this in rake processing, in the receiver processing and in the Tx-Rx timing processing.
He proposed to put this on-hold at the moment to see what happens in RAN WG4 and we would come back to this in November. He also proposed to postpone the relevant CRs (R1-00-1199, R1-00-1200) as well to the next meeting. Finally chairman invited people to draft the LS to RAN WG4 on this issue if needed.
- (*6) The issue regarding "TFCI in the case of invalid transport blocks" had already been discussed in RAN WG1 #15 meeting and LS (**R1-00-1146**) had been sent to RAN WG2 and RAN WG3. In the answer LS from RAN WG3, (**R1-00-1178**, R3-002367, See No.3) they clarified that regarding this issue there is no problem with their current specification (TS 25.427 Ver. 3.3.0) for downlink transmission. Having this answer, these CRs proposed to mention what is described in TS 25.427 in layer1 specification as well. These also intended to cover uplink case and some other clarifications for the special cases.
The very long discussion took place.
Ms. Evelyne Le Strat (Nortel) commented concerning the modification in section 5.3.2 (downlink) of the TS 25.211 part.,
- "NOTE3:As specified in TS 25.427, if TFCI bits are being used and if either no transport blocks, or an invalid set of transport blocks, have been provided to Layer 1, the TFCI field shall be filled as follows: If a Transport Format Combination with no transport blocks is valid, then the corresponding TFCI code word shall be used, otherwise the DTX shall be

used in the TFCI field."

that this was not in line with what was described in TS 25.427. In TS 25.427 section 5.1.2 it only describes that "In case the Node receives an unknown combination of DCH data frames, it shall transmit only the DPCCH without TFCI bits." and there is a difference between an invalid (unknown) set of transport blocks and no transport blocks. When we received an invalid set of transport blocks (meaning that the combination of transport blocks does not correspond to allowed combination.), we have to perform DTX even though there is a combination corresponding to a zero transport block allowed.

Mr. Tim Mousley (Philips) proposed offline discussion on this interpretation issue.

Mr. Dirk Gerstenberger (Ericsson) commented that Ericsson considered DTX was the only logical and sensible solution. He added a couple of comments.

- We have sent LS also to RAN WG2 as well. Therefore we have to wait for their answer before we conclude anything.
- It is difficult to understand why the case could happen in which you get "incorrect transport format combinations on the uplink" within a mobile.

(Chairman suggested one possibility in which this could happen, that is multi-task application, though.)

Ms. Evelyne Le Strat pointed out that there was a big difference between "invalid" and "no transport block at all". What we have to cover in RANWG1 specification is what to use if physical layer does not get any data to transmit. In case that a TFCI corresponding to "no transport block" exists then we have to transmit it but if we do not have corresponding TFCI defined then everything is wrong. Of course it is up to higher layers to control what goes to physical layer and therefore we would never face the situation of "invalid set", but we have to consider what we should do in case of no transport block.

Based on the comments chairman proposed that we should have an offline checking regarding the downlink issue and leave the uplink including DCH initialisation untouched and we would come back if there was a really need for that. And if there was a need we would make a separate CR for that.

Mr. Dirk Gerstenberger commented for future solution there is a room for UE to consider supporting proprietary signalling between RNC and Node B.

There was some discussion on TFCI data part but again Ms. Evelyne Le Strat commented that we would not transmit data part by again referring TS 25.427.

"In case the Node receives an unknown combination of DCH data frames, it shall transmit **only the DPCCH without TFCI bits.**"

Conclusion: The only downlink part should be revised. For the uplink case and DCH initialisation case we would revisit again if there was a need for that. The revision is in **R1-00-1260**. This was reviewed on Day3 and approved. (See No.45)

- (*7) The addition of one further restriction in order for the Blind Transport Format Detection to be supported was proposed to save one combination.

Several comments were made.

- the word "*detected*" should be replaced by "*detectable*" because it is the receiver that decide whether it is "*explicitly detected*" or not. It is not specified which one is "*explicitly detected*".
- the word "CRC" should be replaced by "transport block" because if there is a transport block transmitted then it will have CRC and even if it is the transport block of zero size, it will have CRC. What we should focus on are physical layer restrictions. It should be physical layer centric rather than higher layer centric.

/**/ Coffee break 15:35-16:07 ***/**

There was held offline discussion during the coffee break. After coffee break Mr. Dirk Gerstenberger (Ericsson) summarized the results and stated that they would revise the CR.

R1-00-1261 was allocated for this revision but on Day3 it was announced that this was withdrawn and instead **R1-00-1295** would contain the rev2. version. R1-00-1295 was reviewed and approved on Day3. (See No.47)

- (*8) Some concerns were raised in terms of performance degradation. Mr. Tim Mousley (Philips) explained that according to their simulation results with 5 slot case, which was summarized in **R1-00-1223**, there was not significant difference in terms of Eb/No between 3 slot case and 5 slot case.

Having this simulation results, it was concluded that this CR should be approved.

- (*9) This was the revision of **R1-00-1136** which had been reviewed and postponed in the previous meeting. NEC had prepared the revision reflecting the comments having been received so far.

Mr. Serge Willenegger (QUALCOMM) commented that there seemed to be a fundamental problem and raised 2 problems.

1. With the proposed change, though the power control of the primary cell would be fully correlated with fading experienced by the primary cell, the power control of the non-primary cell, there are DPCCH, would be fully uncorrelated. It would essentially be random power control for those channels. It is questionable to accept this change. At least we need to see that this does not necessary impact on the system. This kind of uncorrelated power control is a bit worrisome from the system point of view. Even if impact on DPCCH interference may not be significant.

(Though even with current specification it would not be fully correlated with fading experienced by the primary cell, however given that primary cell supposedly the strongest one, it would be reasonably correlated.)

2. Discontinuous problem in switching the primary cell. When switching happen, the stepping change will take some time for the power control to converge.

For these comments, chairman suggested offline discussion and proposed to NEC that NEC should provide the references to the papers they submitted as the results of the simulation and performance analysis mainly to RAN WG4. NEC agreed to this proposal and suggestion. These references can be found in **R1-00-1294**.

Mr. Tim Mousley (Philips) commented regarding the change in Annex B.2 that it seemed that there were 2 ways to define the primary cell. One is from the network point of view which is when network receives commands to change the primary cell and the other is from UE point of view because UE has a measure of the downlink signal and decide which cell is the primary or to be signalled as primary cell. Depending on which you will take, the interpretation of the contents of this Annex will change and so some clarification is needed.

Mr. Takashi Mochizuki (NEC) answered that NEC assumed UE viewpoint and their simulation had been conducted on that assumption.

There was not other comments.

Conclusion : NEC will provide the reference paper for their simulation results. **(R1-00-1294)** ✗ (See No.92)
NEC and QUALCOMM or other interested company will have offline discussion.

We will revisit this later.

(This CR was revisited on Day 4 after having R1-00-1294 and approved. (See No.93))

- (*10) In TS 25.433 section 8.2.17.2 there is a text which describes what should be L1 functionality regarding radio link initialisation. This CR proposed to put the functionality in layer 1 specification and then allow RAN WG3 to refer the layer1 specification. This proposal has its origin in the e-mail discussion.

Mr. Dirk Gerstenberger (Ericsson) commented we should send RAN WG3 a liaison statement before we approve this proposal.

Chairman commented that the word "*RLS initialisation*" would not necessary be in the proposed text.

Mr. Alexander Lax (3G.com) commented that the word "Either" is not necessary in the 4th line of the proposed text.

Mr. Peter Chambers (Siemens) agreed to these comments

Ms. Sarah Boumendil (Nortel) raised a question about the reason why such a description did exist in RAN WG3 specification and suggested that maybe we should ask RAN WG3 about the purpose.

After some discussion chairman concluded that before approve this CR we should send a liaison statement to RAN WG3 saying,

"RAN WG1 considers that this is within the scope of RAN WG1. RAN WG1 intends to capture this kind of behaviour in RAN WG1 specification. RAN WG1 would like to ask RAN WG3 what the benefit, motivation and purpose of having this actual procedure in RAN WG3 specification. RAN WG1 would also like to remove this from RAN WG3 specification."

(According to the information from Mr. Tim Mousley (Philips), this text in RAN WG3 had been brought by Ericsson.)

Chairman asked Mr. Peter Chambers to draft a liaison statement. The draft LS can be found in **R1-00-1272** and this was reviewed on Day 4 and approved with some modification into **R1-00-1320**. (See No.106)

Chairman stated that we would come back the revision of this CR in the next RAN WG1 meeting.

- (*11) This was a correction to the CR approved in the previous meeting. Redundancy part had been removed.

- (*12) Though there were no fundamental problems identified with this CR, there were some editorial comments made. Therefore this was to be revised. The revision is in **R1-00-1273**. This was reviewed and approved on Day 3. (See No. 38)

- (*13) This topic had been discussed in the e-mail reflector.

Mr. Tim Mousley (Philips) commented on the very last line of the CR (section 5.1.2.2.1.1) that it needs some clarification.

" *Prior to the time where these criteria are used, the UE transmitter is fully controlled by higher layers.* "

Mr. Erik Dahlman (Ericsson) agreed that this sentence maybe slightly too general and proposed to removed this sentence. So this was to be revised. The revision is in **R1-00-1274**. The revision was reviewed on Day 3 and approved with no comments (See No. 39)

- (*14) This was a discussion paper for the simplifications for the current specification on AICH and PICH. The background is that currently there are a large number of options, which UE needs to read before accessing UTRAN. Also in the case when handover from GSM is to be performed, there is very limited amount of information that can be given to the UE in GSM side. In order to limit the possible cases the review of the needed parameters UE needs to have for the cell access (or paging state) was done. The following topics were identified.

- Phase reference for PICH and PCH.
- Scrambling codes for PICH and PCH
- Use of secondary scrambling code for AICH

Nokia proposed that if the suggested simplifications were found not causing problems (i.e. there is no practical use of the options identified), then CRs on the mentioned items should be done on the issues later at this meeting or at RAN WG1#17. On these points other RAN WGs need to be informed as well to ensure alignment.

Mr. Erik Dahlman (Ericsson) commented that 3rd point is not so clear though he support first 2 points. But finally he agreed to all proposed changes.

Mr. Serge Willenegger (QUALCOMM) questioned how much (percentage) this additional restriction would solve the problem.

Chairman answered that in general there are a lot of parameters and so this would remove some of them. But it is not major part of the problem. This would of course remove some options that would need to be tested and verified for the UEs in order to work properly. Perhaps it is more important to remove those funny options which nobody is going to use in practice but anyway UEs would need to somehow support.

Based on the comments received chairman concluded that the proponents should provide a CR.

The actual CR can be found in **R1-00-1275** and **R1-00-1276**. These CRs were reviewed on Day3 but further revised. (See No.33 and No.34). Finally approved in **R1-00-1296** and **R1-00-1297** on Day4. Furthermore LS was produced in **R1-00-1298** and approved in **R1-00-1309** on Day 3. (See No.101)

Day 2, started at 09.01

Day 3, started at 09.05

6. Change Requests for WG1 Release –99 specifications (Part II)

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
27	069	1	25.215	R1-00-1192	Support of parallel compressed mode patterns	F	Ericsson	To be revised	(*1) <small>Day2 09:31</small>
28	018	-	25.225	R1-00-1006	Corrections and Clarifications to 25.225	F	Siemens	Approved but Revised	No (*2) Comment <small>Day2 09:35</small>
29	075	1	25.215	R1-00-1251	Definition of UTRAN RSSI	F	Ericsson	Approved	(*3) <small>Day2 16:06</small>
30	069	2	25.215	R1-00-1280	Support of parallel compressed mode patterns	F	Ericsson	To be revised	(*4) <small>Day2 16:38</small>
31	-	-	-	R1-00-1279	Computation of initial value of SIR_{target} in UE	-	Mitsubishi	LS will be produced	(*5) <small>Day2 16:56</small>
32	079	1	25.211	R1-00-1258	Clarification of downlink phase reference	F	Ericsson	Approved but Revised	(*6) <small>Day3 09:13</small>
33	086	-	25.211	R1-00-1276	Proposed clarification of the phase reference for some downlink common channels	F	Nokia	To be Revised	(*7) <small>Day3 09:23</small>
34	037	-	25.213	R1-00-1276	Proposed removal of the option of secondary scrambling code for some downlink common channels	F	Nokia	To be Revised	
35	096	-	25.212	R1-00-1227	Compressed mode by puncturing	F	Nortel Interdigital	Approved	(*8) <small>Day3 09:37</small>
36	097	-	25.212	R1-00-1277	Clarification on the C_i formula	D	Mitsubishi	Approved	No Comment <small>Day3 09:42</small>
37	049	-	25.222	R1-00-1277	Clarification on the C_i formula	F	Mitsubishi	Approved	
38	136	1	25.214	R1-00-1273	Clarification of RACH behaviour at maximum and minimum power	F	Siemens	Approved	(*9) <small>Day3 09:46</small>
39	130	1	25.214	R1-00-1274	Radio link establishment and sync status reporting	F	Ericsson	Approved	No (*10) Comment <small>Day3 09:49</small>
40	074	1	25.214	R1-00-1195	Clarification of SIR_{error} measurement during compressed mode	F	Ericsson	Approved	No (*11) Comment <small>Day3 09:51</small>
41	077	1	25.215	R1-00-1256	Clarification of reference point for UE/UTRAN measurements	F	Ericsson	Approved	No (*12) Comment <small>Day3 09:59</small>
42	076	1	25.215	R1-00-1257	Clarification of GPS timing measurements	F	Ericsson	Approved	(*13) <small>Day3 10:12</small>
43	079	2	25.211	R1-00-1296	Clarification of downlink phase reference	F	Ericsson	Approved	No (*14) Comment <small>Day3 17:10</small>
44	037	1	25.213	R1-00-1297	Proposed removal of the option of secondary scrambling code for some downlink common channels	F	Nokia	Approved	No (*15) Comment <small>Day3 17:11</small>
45	083	1	25.211	R1-00-1260	DL Transmission in the case of invalid data frames	F	Philips	Approved	No (*16) Comment <small>Day3 17:22</small>
46	087	-	25.211	R1-00-1289	RACH message part length	F	Nortel Networks	Approved	(*17) <small>Day3 17:29</small>
47	094	2	25.212	R1-00-1295	Correction of BTFD limitations	F	Ericsson	Approved	No (*18) Comment <small>Day3 17:31</small>
48	069	3	25.215	R1-00-1291	Support of parallel compressed mode patterns	F	Ericsson	Approved	No (*19) Comment <small>Day3 17:44</small>
49	035	1	25.221	R1-00-1009	Clarifications on Midamble Associations	F	Siemens	Approved	No Comment <small>Day3 17:57</small>
50	019	-	25.225	R1-00-1253	Corrections and Clarifications to 25.225	F	Siemens	Approved	No (*20) Comment <small>Day3 18:00</small>
51	018	1	25.225	R1-00-1007	Corrections and Clarifications to 25.225	F	Siemens	Approved	No (*21) Comment <small>Day3 18:03</small>

- (*1) This was the revision of **R1-00-0951** which had been reviewed in the RAN WG1#14 for the first time and secondly reviewed in the RAN WG1#15 meeting as well. In both reviews, there were some concerns made and thus this CR had been postponed. The original intention of this CR was to reduce the maximum number of parallel compressed mode pattern sequences defined in the table. Every number in the table contains one additional count for something "other purpose". At least now there is no such other measurement. There had been another CR regarding this from QUALCOMM in the previous meeting which proposed that this "other purpose" could be positioning/location measurements and therefore this CR had been postponed and LS had been sent to RAN WG2, RAN WG3 and RAN WG4 respectively. However there had been some discussion in the last RAN plenary on this issue. It had been clarified in the RAN that this "other purpose" should not be understood as LCS measurement at least in release 99. Therefore this "other purpose" should be removed from the release 99 specifications. Then recently in RAN WG4 there was a discussion to break down GSM measurement purpose from the general term of GSM to specific GSM measurements. RAN WG4 has already included those specific purposes in their specifications and asked RAN WG2 to assign for each compressed mode pattern sequences. Thus the original CR contained in R1-00-0951 had been revised so as to align with RAN WG4 specifications. Ms. Sarah Boumendil (Nortel) commented that though she agreed to the changes listing different purposes she pointed out it was not clear from the text under the listed measurement purposes (above the deleted table) that UE which should support different measurement purposes has to support a certain number of compressed mode pattern sequences activated simultaneously. She proposed somewhere in the text something which says that UE has to support a number of compressed mode pattern sequences simultaneously. She also pointed out that the very last sentence of that paragraph saying "This applies independently to DL and UL directions." needed clarification. Mr. Ville Steudle (Nokia) commented that Nokia did agree with the basic idea and so there was no problem with measurement purposes however there was one point we have to think about, that was the table 1. He stated that RAN WG4 was defining performance requirements which are dependent on the Gap Length. He proposed as one option to remove the Gap Length within this specification completely and to leave it open to RAN WG4 for performance requirements. Mr. Dirk Gerstenberger (Ericsson) answered that table 1 was same as RAN WG4 had and he could agree to remove the table 1 but still he wanted to keep table 2. Regarding the text, he answered the current text was based on what was proposed by Qualcomm in the previous meeting. The very last sentence means
 "The capability of the UE to operate in compressed mode in uplink and downlink is given from the UE capabilities."
 There was some discussion concerning the handling of the table. Finally chairman concluded an offline discussion should be held about this table handling and in any case for other rewording this CR should be revised. As for the table he suggested as one easiest way that we remove the table 1 in this meeting and send LS RAN WG4 asking whether we should have a table or not and depending on the answer from RAN WG4 we would approve the further revision of the CR.
 The first revision is in **R1-00-1280**. This was reviewed in the afternoon and further revised into **R1-00-1291**. (See No.30) LS would be made in **R1-00-1281**. This was reviewed on Day3 and approved in **R1-00-1311**. (See No.103)
- (*2) This CR proposed following.
- A note clarifies the fact that the TDD SIR measurement is dependent on the receiver implementation.
 - It is clarified that timing measurements made on received signals are defined by the "first detected path (in time)", using the definition given in FDD.
- This was revised on Day3 in order to add new note (Note 7) in section 5.1. The revision is in **R1-00-1007**. (See No.51)
- (*3) This was the revision of **R1-00-1191** which had been discussed on Day1. (See No.9)
 In accordance with the discussion on Day1, "internally" and "carrier" had been removed.
 It was pointed out that there was a typo in the first line.
 "The received wide band power including *the in the* receiver generated noise,---"
 Mr. Dirk Gerstenberger (Ericsson) answered that it was not typo because the original text proposal from RAN WG4 was
 " The wide-band received power including the internally in the BS generated noise,---"
 and he just replaced BS with receiver and removed the word "internally" in accordance with the comment received.
 /*** But this is not correct. The original text proposal can be found in LS (**R1-00-1205**, R4-000743) and it reads
The wide-band received power including the internally generated noise in the BS, within the UTRAN uplink carrier channel bandwidth in an UTRAN access point. In case of BS with receiver diversity the reported value shall be the linear average of the power in the diversity branches.
 So for some reason it seems that there had been a mistake made in the introductory paper of this CR and the original text proposal had not been transplanted correctly. ***/
 This CR would be attached to the answer LS to RAN WG4. The LS was in **R1-00-1252** and reviewed in succession and approved in **R1-00-1290**. (See No.99)
- (*4) This was the revision of **R1-00-1192** which had been discussed in the morning. (See No.27)
 Ericsson had modified the text according to the comments.
 But there was one comment from Ms. Sarah Boumendil (Nortel) on section 6.1.1.3 that the first sentence should be modified as
 "UEs supporting modes *and/or* RAT that require several measurement purposes"
 (RAT stands for Radio Access Technologies meaning GSM in this case)
 There took place a bit long discussion on this issue. Should we add the abbreviation list ? Why should we put GSM term here ? Why can not we use another term which is more sensible to the physical layer ? RAT is very well

known term in the world of GSM. RAN WG2 and RAN WG3 specifications do have this term, etc. Eventually it was decided to remove section 6.1.1.3 itself completely. So this was to be revised. As for the configuration table, information is provided in TS 25.212, section 4.4.4. Regarding the information on what kind of TG would be used for what purposes, there is very detailed information in the RRM specification (TS 25.133) and there also possible transmission gaps have been assigned. The revision is **R1-00-1291**. This was reviewed on Day3 and approved with no comment. (See No.48)

- (*5) This was a discussion paper containing a draft LS to RAN WG2 and RAN WG3 asking their opinion on how to determine the value of the power offset for initial SIR_{target} value calculation in the UE. The background is as follows.

It was decided by RAN WG2 to suppress signalling of the initial value SIR_{target} to UE. The UE is currently only signalled a BLER target value. From this BLER target value it can compute some SIR_{target} value for the data part. However to get the SIR_{target} value for the pilot part, the UE needs to add up the power offset between pilot part and data part. Not only this offset is not known to the UE, but also it cannot measure it beforehand as the connection is not yet established.

There were some editorial comments made but in principle no objection was raised. Chairman suggested some rewordings on the screen.

There was one comment that this should be sent to RAN WG4 as cc because there had been similar discussion in RAN WG4. It was also questioned whether RAN WG1 was a proper place to have this description.

The draft LS was made in **R1-00-1292**. This was approved as **R1-00-1312** on Day3. (See No.104)

- (*6) This was the revision of **R1-00-1187** which had been discussed on Day1 (See No.10). There had been a long discussion regarding section 5.3.3.1.1 and 5.3.3.1.2. Offline discussion had been held and as result text proposal had been modified.

There was an editorial mistake in 5.3.3.1.1 and CR front sheet but since they had nothing to do with modified text itself, it would be corrected by the secretary.

There was no other comment and it was concluded that there was no need to send LS on this topic to RAN WG2 or RAN WG4. Although this was approved by following reason this was to be revised. (See below.)

- (*7) These CRs were based on the discussion paper **R1-00-1230** which had been discussed on Day1 (See No.26) Nokia had prepared **R1-00-1275**(CR 25.211-085, CR 25.213-031),but afterwards they realized same simplification should be done on common packet channel indicator channels and so made another set of CRs which were contained in **R1-00-1276** (CR 25.211-086, CR 25.213-037). Chairman suggested reviewing R1-00-1276 first. It was pointed out by Mr. Tim Mouldsley (Philips) that the text in section 5.3.3.1.1 was overlapping with the CR we had just approved. (CR 25.211-079, **R1-00-1258**, See No.32.) It was also pointed out there was an error in section 5.2.2 in CR25.213 part. "CD-AICH" should be replaced by "AP-AICH".

Chairman concluded that CR 25.213 should be revised to reflect the comment and CR 25.211 part and should be merged with CR 25.211-079 (R1-00-1258, CR from Ericsson).

Eventually this CR was incorporated into CR 25.211-079. So CR 25.211 was to be revised in **R1-00-1296**. This was reviewed and approved in the evening. (See No.43). CR 25.213 part was revised in **R1-00-1297**. This was reviewed and approved in the evening as well.

LS on this issue was suggested. Mr. Jussi Kahtava (Nokia) would draft the LS in **R1-00-1298**. This was reviewed and approved in **R1-00-1309** in the evening as well. (See No.101)

- (*8) This CR was proposing the correction of some mistakes left in the text of compressed mode by puncturing method. Mr. Dirk Gerstenberger (Ericsson) commented that he understood the initial intention was basically corrections, however since quite a lot of text in the rate matching procedures had been modified we needed to have some time to check in detail.

Chairman proposed that we should approve this now and see if there was any problem or not in the next meeting or on the reflector prior to the next meeting. Though there was another opinion to postpone this until next meeting, finally it was approved with a note that this would be open if there were problems found between this and next meeting. People were invited to check the details by the next meeting.

- (*9) This was the revision of **R1-00-1243** which had been discussed on Day1 (See No.24)

Mr. Dirk Gerstenberger (Ericsson) commented that the word "commanded power" sounded a bit strange. Should we change it with for instance "signalled power". But finally he agreed with the proposed text. It would not be signalled.

- (*10) This was the revision of **R1-00-1189** which had been discussed on Day1 (See No.25).

In accordance with the comment, the very last line had been removed.

- (*11) This CR proposed to clarify how SIR_{error} shall be calculated during compressed mode i.e when SIR_{target} in Node B is replaced by SIR_{cm_target} for the inner loop power control.

This was the revision of **R1-00-1190** which had been on the reflector.

It was stated that this modification would not affect other working groups.

- (*12) In 25.215 the term "antenna connector" is used to define the reference point for UE/UTRAN measurements. This CR proposed to clarify what is meant with that term by adding a reference to the relevant WG4 specifications.

This was the revision of **R1-00-1212** which had been on the reflector.

Related discussion had taken place briefly on Day 1 regarding "Definition of UTRAN RSSI" CR.

(**R1-00-1191**, CR 25.215-075) (See No.9)

- (*13) Currently the measurement reference point for the UE and UTRAN GPS Timing of Cell Frames for LCS measurements are unclear. It was proposed to set the measurement reference point to the antenna connector. Also in the definition of the measurement UTRAN GPS Timing of Cell Frames for LCS a reference was made to a

reception time instant although the measurement shall actually measure the transmission time instant. These issues were clarified in this CR.

There was a comment suggesting to remove the parameter regarding "UTRAN GPS Timing of Cell Frames for LCS" because it is specified twice in UE and UTRAN side. Chairman answered it would not be just a correction. If we remove it, it needs to be removed from all the working groups. So we need to keep that measurement regardless of its necessity.

It was commented that RAN WG2 should know this change.

- (*14) The Ericsson's CR had been already approved. (See No.32) This was revised to incorporate Nokia's CR (CR 25.211-086, **R1-00-1276**) (See No.33) because it had been pointed out that these were overlapping. Since this was approved Nokia's CR (CR 25.211-086) was withdrawn.
- (*15) This was the revision which had been discussed in the morning. (See No. 7) One editorial error had been corrected. Nokia had prepared a LS (**R1-00-1298**) regarding this issue and it was reviewed in succession and approved in **R1-00-1309**. (See No.101)
- (*16) This was the revision of **R1-00-1201** which had been discussed on Day1 (See No.15) CR title had been changed significantly according to the comments received.
Mr. Dirk Gerstenberger (Ericsson) commented that CR now looked good however we need to wait for RAN WG2 answer to come as he pointed out on Day1 to see there was no problem with this change.
Chairman proposed to approved this here and we may revisit the issue once we have received RAN WG2 LS.
/*** LS arrived after our meeting was over. (R1-00-1329, R2-002133) ***/
Mr. Tim Mouldsley (Philips) commented there was another CR from Philips (CR 25.211-080, **R1-00-1197**) which had been approved on Day1 (See No.13). It deletes the whole paragraph just above section 5.3.2.1 and this CR again deletes the last sentence of that paragraph. He stated that this should be mentioned for the CR implementation work done by secretary.
Ms. Evelyne Le Strat (Nortel) questioned the reason why in Note 3, the word "may" is used because in TS 25.427, the word "shall" is used. Some discussion was made regarding this, but finally chairman concluded that we should use "may" here because we did not put all the reasons behind what the conditions are.
In **R1-00-1201** which had been discussed on Day1 contained CR 25.212-095 however Mr. Tim Mouldsley announced it had been removed in this revision. (maybe withdrawn ??)
- (*17) This CR proposed to clarify that the message part length is equal to the TTI of the RACH transport channel in use and this TTI is configured by higher layers because current specification was not clear on the relation with TTI of RACH transport channel mapped onto the selected PRACH.
Mr. Dirk Gerstenberger (Ericsson) commented that this was somehow related to the discussion that was currently taking place between RAN WG2 and RAN WG3 about the RACH, PRACH model. (See No.1)
Chairman answered at least from our point of view there was no problem with this CR. It was difficult for this CR to give impacts on their modelling.
- (*18) This was the revision of **R1-00-1188** which had been discussed on Day1. (See No.17)
Ericsson had prepared LS to inform this change to RAN WG2 and it was reviewed in succession. It was approved in **R1-00-1310** on Day 3 (See No.102)
- (*19) This was the revision of **R1-00-1280** which had been discussed on Day2 (See No.30). Following after the discussion whole section of 6.1.1.3 "Parameterisation limitations" had been deleted and instead a reference to the relevant GSM specification had been added for BSIC measurements. In succession LS was reviewed (See No.103)
- (*20) This was the TDD version of "CR to UTRAN RSSI measurement" (See No.9)
- (*21) This was the updated of already approved CR. (**R1-00-1006**) One note (Note 7 in section 5.1) had been added.

7. Reviewal of Working CRs for 1.28 Mcps TDD (Postponed from RANWG1#15)

/** All following working CRs had been prepared in the RAN WG1#15 but due to the lack of time, not reviewed in that meeting. **/

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
52	XXX	-	25.221	R1-00-1148	CR for TS25.221 regarding the 1.28 Mcps TDD	B	CWTS	Approved	No Comment <small>09-44</small>
53	XXX	-	25.222	R1-00-1149	CR for TS25.222 regarding the 1.28 Mcps TDD	B	CWTS	Approved	No Comment <small>09-45</small>
54	XXX	-	25.223	R1-00-1150	CR for TS25.223 regarding 1.28 Mcps TDD	B	CWTS	Approved	(*1) <small>09-54</small>
55	XXX	-	25.224	R1-00-1151	CR for TS25.224 regarding 1.28 Mcps TDD	B	CWTS	Approved	No Comment <small>09-47</small>

(*1) Ms. Evelyne Le Strat (Nortel) commented that we should try to have consistent description between TS 25.221 and TS 25.223 specifications regarding the burst format. In TS 25.223 we should have the sequences provided but burst format has to go to TS 25.221.

Chairman supported this comments and added that the description should be consistent between FDD and TDD as well. TS 25.221 should have the burst structures and TS 25.223 should have the sequences. He pointed out as an example that the burst structure in section 9.1 should be moved to TS 25.221.

Chairman suggested that these comments should be reflected in the next round.

8. Release 4/5 issues (order of items to be adjusted so that work items still scheduled for Release 4 shall be treated first)

Ad Hoc configuration

AH21 : TDD 1.28 Mchips functionality (TR)

AH22 : Terminal power saving features

AH23 : Compressed mode (No contribution)

AH24 : High speed downlink packet access

AH25 : Hybrid ARQ

AH26 : Tx-diversity

AH27 : Radio link performance enhancements

AH28 : Improved Common DL Channel for Cell FACH State

AH29 : Positioning (No contribution)

AH30 : TDD NodeB synchronisation (No contribution, Postponed for the next meeting)

AH31 : Uplink Synchronous Transmission

8.1 High Speed Downlink Packet Access (HSDPA)

/** TR number cannot be obtained unless required information is provided. ***/

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
56	24	E-DSCH_TR_L1_V00.zip	TR on UTRA High Speed Downlink Packet Access	Motorola	To be revised	(*1) Day2 09:58-11:55
57	24	R1-00-1241	Forward Link Simulation Results for HSDPA	Motorola	Noted	(*2) Day2 11:56-12:32
58	24	R1-00-1182	Link level simulation results of HSDPA	Panasonic	Noted	(*3) Day2 14:51-14:59
59	24	R1-00-1202	Throughput of HSDPA	Philips	Noted	(*4) Day2 15:00-15:35
60	24	R1-00-1217	Preliminary link level results for HSDPA using multiple antennas	Lucent	Noted	(*5) Day2 17:17-17:36
61	24	R1-00-1219	Practical aspects of multiple antenna architectures for HSDPA	Lucent	Noted	(*6) Day2 17:37-17:48
62	24	R1-00-1238	Simulation results for Enhanced DSCH	Sony	Noted	(*7) Day3 10:15-10:38
63	24	R1-00-1240	HSDPA system performance based on simulation	Motorola	Noted	(*8) Day3 11:10-11:51
64	24	R1-00-1193	Physical layer aspects of HSDPA and text proposals for HSDPA Technical Reports	Ericsson	To be revised	(*9) Day3 11:53-13:58
65	24	R1-00-1184	Signalling of CPICH and DSCH power ratio for M-ary demodulation	Panasonic	Noted	(*10) Day3 13:59-14:01
66	24	R1-00-1185	Signalling of CPICH and DSCH power ratio for FCSS	Panasonic	Noted	(*11) Day3 14:02-14:11
67	24	R1-00-1242	Control Channel Structure for High Speed DSCH (HS-DSCH)	Motorola	Noted	(*12) Day3 14:12-14:28
68	24	R1-00-1220	HSDPA Technical Report status and text proposals	Lucent	To be revised	(*13) Day3 15:23-16:01
69	24	R1-00-1284	TR on UTRA High Speed Downlink Packet Access	Motorola	To be revised	(*14) Day3 16:02-16:15
70	24	R1-00-1306	TR on Physical Layer Aspects of UTRA High Speed Downlink Packet Access	Motorola	Approved	(*15) Day4 09:34-09:48

(*1) This document was distributed without T-doc number. Just the file name "E-DSCH_TR_L1_V00.zip" was given in the meeting. The document was distributed on Day1 afternoon CD-ROM.

Ms. Evelyne Le Strat (Nortel) asked for the clarification of the status of the document. There were a lot more text put in this TR rather than just outline.

Chairman and Mr. Amitava Ghosh(Motorola, the editor of this TR) answered that this TR was based on the outline originally presented in RAN WG2. They had already assigned which sections RAN WG1 should work off. We would cover only sections RAN WG2 had assigned for us. Mr. Amitava Ghosh stated that in this TR, Motorola had filled out some of the basic sections which was considered under the scope of RAN WG1.

Chairman agreed to this answer from Mr. Amitava Ghosh and added that now what we should discuss here was whether some modifications would be needed for this structure or what we intended to cover. He also stated that it was quite natural that after we had done this work during this meeting on HSDPA we should provide this TR for RAN WG2 to be checked whether there was any inconsistency or problem with that. Officially speaking, there was no status in RAN WG1 on this document until we had agreed the structure and what to put into them.

Ms. Evelyne Le Strat asked whether this would be RAN WG1 TR for HSDPA or some kind of the global report which is to be edited by all working groups together under the direction of RAN WG2.

Chairman answered that we were now producing RAN WG1 TR for HSDPA as mentioned in the past RAN WG1 meetings and RAN plenary #9 as well but still we would provide this to RAN WG2 for comments.

There was a comment that details should be treated in the Ad Hoc meeting. Chairman commented that indeed it takes time but at least in the beginning, in the plenary session we need to give the Ad Hoc the clear direction about what kind of issues should be covered in the Ad Hoc and how it should be done.

Chairman proposed checking the structure and contents of this TR on section-by-section basis.

There were a lot of comments made on each section and long discussion took place. Several sections which were considered not to be relevant for RAN WG1 were removed and several sections were moved to different sections. And a lot of rewordings were proposed. Finally large part of TR was set to be revised.

Chairman suggested that the revision should be sent to RAN WG2.

The revision can be found in **R1-00-1284**. This was reviewed on Day 3.

(*2) This was a link simulation results and Mr. Amitava Ghosh (Motorola) presented this on the screen.

- With Hybrid ARQ and STTD a gain of approximately 4dB is achieved over all range of vehicle speed over a system without Hybrid ARQ and STTD.
- Under multipath, the performance of 64-QAM modulation degrades at high values of vehicle speeds due to self-interference.
- As the number of codes are doubled, the power requirement is also doubled.
- Average sector throughput of approximately 2.6 Mbps can be achieved at slow speed and 20 codes with Equal Average Power Scheduler.
- Increasing the number of codes will improve the average throughput but there may be a shortage of OVSF codes to support the overhead and control channels.

There were several questions and answers made regarding the simulation assumptions.

Chairman made a comment regarding simulation results and TR.

In some point of time we have to think how much simulation results we need to have in the TR for this feasibility study phase. Maybe between this meeting and next meeting we need to summarize what kind of results we have and we need to think what kind of results would be needed from RAN WG1 point of view so that the further simulation efforts can be focused on the essentially needed part of the feasibility study. We will have a lot of curves from several companies and so it is good then to see what are the essentially things missing from the feasibility point of view, where people should put their simulation efforts. As is often the case, it would really come to the very late point in the process and in the meeting that in spite we have more than hundred curves from several companies but still we are missing one simulation result. It would be good to have this kind of comments before the next meeting because during the meeting simulations usually cannot be done.

/** Lunch break 12:32-13:46 **/

(*3) This paper presented a simulation result of HSDPA based on the assumption which had been presented in the previous meeting. Some simulation assumptions that should be clarified were also pointed out. Simulation results were very similar to that of Motorola which had been reviewed in **R1-00-1241**.

The structure of rate 1/4 turbo encoder was briefly mentioned and it was announced that Panasonic would clarify the structure of rate 1/4 turbo encoder within this meeting.

There was one question from Mr. Erik Dahlman (Ericsson) regarding the structure of rate 1/4 turbo encoder whether it was normal way to use 2 convolutional coded sequences put in parallel since he had assumed to do it. (In that sense there could be 3 ways for the 1/4 turbo encoder.)

There were no other comments.

(*4) This paper was exactly extended version of the one presented in the previous meeting (**R1-00-1045**). The simulation assumptions had been updated to be in line with the comments received. Still stationary or slowly moving terminals had been assumed however some contribution from fast fading had been included.

As a conclusion, followings were shown.

- 1. The use of 64QAM does not increase the throughput significantly
- 2. The use of 16QAM offers some performance improvement compared with QPSK only (9%)
- 3. If only QPSK is used then, the throughput can be improved by reducing the transmission power when full power is not required. The advantage of 16QAM is reduced to 5% throughput.
- 4. The use of an unfair scheduler which rejects packets requiring a long transmission time can improve the throughput significantly (up to 13% by rejecting 5% of packets)
- 5. Performance is sensitive to the estimation error of the SIR.
- 6. Improving the ARQ scheme may give 10-20% more throughput, but at the cost of more re-transmissions.
- 7. Site selection is essential.
- 8. For the ARQ algorithm used as the reference (Scheme B), the probability of failure of the first transmission is around 10%.

There was some discussion regarding the intra cell interference problem caused by co-existence of power controlled terminals and this fixed power HSDPA terminal. Chairman commented that same thing would happen even in release 99 specification. Common pilot which is not power controlled with fixed power level and power

controlled dedicated channels. This is a kind of a fundamental issue rather than the issue proper to be discussed here. There was also discussion regarding assumption of the scheduler because this assumption was very different from that of Motorola paper and that could be considered the reason of the differences in the conclusion. (regarding the gain in high order modulation). It was assumed in this simulation that every UE receives same amount of data, every user is demanding the same amount of data.

(*5) This was a Power Point presentation. **R1-00-1218** is the explanatory paper for R1-00-1217

In this presentation some preliminary link level results were shown demonstrating the gains of space-time transmission and detection techniques. This was based on **R1-00-1096** which had been discussed in the previous meeting. Following results were shown.

- If multiple antennas are used at both the transmitter and receiver, capacity grows *linearly* with number of antennas.
- Space-time techniques can achieve a given data rate and frame-error rate with lower required Eb/N0 and smaller data constellations than single antenna links.
- Space-time techniques can achieve higher maximum data rates than single antenna links.

Several comments were made.

- Perfect channel estimation is used \approx they will continue the study more detailed simulation with erroneous channel case

- Correlation between antennas ? \approx they will be discussed in the following paper separately (**R1-00-1219**).

- Why diversity gain was obtained ? \approx there is a diversity gain as well depending on how you do the section.

Was it really diversity gain or any other reason (coding/interleaving) could not be considered ?

- Multi-path fading simulation will be presented in the next meeting. This was flat fading case.

- etc. (some requirements for simulation parameter/assumption were raised.)

(*6) Some practical implications of the multiple antenna architecture with code re-use was presented including antenna spacing issues at the terminal and base station, backward compatibility with current HSDPA proposals and UMTS dedicated channels, and complexity issues at the terminal.

There was a discussion on terminal/base station complexity (applicability) in conjunction with antenna spacing.

Lucent answered even with correlated antenna which might be the case of indoor scenario, there still remains relative multiple capacity gain. We need to do more detailed study.

(*7) This paper presented simulation results for the Enhanced DSCH addressing the issue of AMCS mode adaptation rate. The intention was to show some benefits of changing the rate of link adaptation by varying the averaging length of reported SIR for AMCS mode selection.

It was shown that in slow varying channel conditions larger throughput can be obtained by adapting AMCS mode to instantaneous SIR reported from UE rather than adapting with long-term averaged SIR though it is needed under fast varying channel conditions. UTRAN may choose to change AMCS adaptation rate (number of averaging on reported SIR) to maximize cell throughput. For the simulation, the assumptions presented in **R1-00-1093**(Ericsson, Motorola, Nokia) were used as a basic principle however there were differences in AMCS mode shown in Table 1. Ms. Evelyne Le Strat (Nortel) commented regarding the fact that exactly the same coding scheme had been used for the re-transmission compared to the initial transmission that it maybe pessimistic because for the re-transmission we can use something intermediate between the original and ideal one as a coding scheme based on the SIR. It can be flexible.

There was some discussion about the restriction on the re-transmission. Is there really reason that one has to have any restriction on modulation or coding schemes for the re-transmission ?

\approx It is one thing that should be studied in a Work Item that how you do the Hybrid ARQ scheme. What kind of restrictions should be posed based on the performance, complexity or etc.

Mr. Tim Mouldsley (Philips) commented that it was not quite clear whether there is actual degradation to use the instantaneous SIR value on the faster fading condition. Is it really necessary to use the average on the faster fading condition ?

It was answered that it would be for further study.

(*8) Best effort packet data average sector service throughput for a HSDPA system using a maximum C/I scheduler was shown to achieve 2.5Mbit/s based on system simulations. A single ray 3kph rayleigh faded channel was modeled for each user. At this load level up to 36% of the users in the system still achieved a packet call throughput exceeding 1Mbit/s and less than 13% achieved throughput below 32kbit/s (from Table 3). Results show that 20 size 32 OVFSF codes were enough to support these throughput levels therefore leaving 12/32 of the OVFSF tree for all other channels including control channel associated with HSDPA. Finally, results indicate that no more than four MCS levels (perhaps only 3) are needed to support the high sector throughput given the use of a fast Hybrid ARQ scheme.

There was some discussion about simulation assumptions and scheduling schemes.

Chairman commented that probably it would be good to classify the simulation results according to the scheduler principle used when we put simulation results in the technical report. It would be most logical approach because it seems to be the one that makes the biggest difference in general in the system simulation.

It was commented that the fairness metrics would also be included as a key parameter.

Chairman summarized the reviewal of simulation results and commented that we should figure out what kind of additional simulation still needed for the feasibility report. Some kind of summary is needs to be done by some people sitting together to identify what kind of cases would be needed and what not. And it will be very difficult to decide which curves would be actually put into the technical report considering the amount of results we will have from so many actively contributing companies.

- (*9) The paper discussed the basic physical-layer structure of the HSDPA Physical Channel and physical-layer aspects of uplink and downlink signalling associated with HSDPA transmission. Based on this discussion, some initial text for the HSDPA Technical report was proposed. Chairman collected comments for each section.
- In section 2.1 it was commented by Ms. Evelyne Le Strat (Nortel) that it was very premature to say "In the code domain, HSDPA transmission **should** use a fixed spreading factor and multi-code transmission." even if this had been the assumptions for the simulations done so far.
- Mr. Tim Mousley (Philips) supported this comment and proposed that almost all places where it said "should" in the text proposal had better be replaced by "may".
- Ms. Evelyne Le Strat suggested one modification, "HSDPA transmission may also use variable spreading factor however the benefit of the use of variable spreading factor is to be evaluated depending on the UE capability" or something like that.
- Similar kind of and very long discussion continued to the end of the text proposal and for each part modifications were suggested.
- Finally chairman suggested that the proponents should revise the text proposal and have people who may comment have a look before it is presented again. The revision can be found in **R1-00-1302**. This was not reviewed but the revised TR(**R1-00-1306**) which contained the revision of this text proposal was reviewed on Day4. (See No. 70)
- (*10) This paper informed that signalling of CPICH and DSCH power ratio is needed for M-ary demodulation. There was one comment that this should be put somewhere in the TR probably in the section which discusses modulation/coding lest we should forget. Chairman agreed to this comment and suggested a sample statement. "Availability of the phase reference in case of QAM modulation needs to be ensured."
- (*11) This paper informed the necessity of the signalling of CPICH and DSCH power ratio in order to select the best cell DSCH since the power offset between CPICH and DSCH is set individually cell-by-cell. Some discussion was made regarding how UE should find the best cell, or what the best cell is.
- UE should choose the best cell based on the measurements of the pilot S/N ratio from multiple cells because the actual power allocated to the DSCH may or can vary from frame to frame. It is not needed to know the ratio of DSCH/CPICH to know what the best cell is at least on the downlink.
 - Proposed mechanism would not work because it did assume that there is the same power ratio on the DSCH. We may need some other information supplied to the cell selection and this could be study item.
 - The definition of the best cell could be vary depending on the viewpoint. Maximum throughput / Efficiency in terms of required S/N.
- Chairman concluded that the information of power ratio was probably relevant for QAM demodulation. But judging from the comments, the need for this CPICH/DSCH ratio was not clear. The comments were suggesting that the pilot should be the base for cell selection rather than individual channel power.
- (*12) This paper presented the uplink and downlink control channel structure for High Speed Downlink Shared Channel (HS-DSCH).
- Chairman welcomed this kind of proposal for the base for discussion. Although it was a bit early considering the discussion status but anyway this is something that should be useful to consider alternatives. It was pointed out that the bit rates had been put as symbol rates in Table2. (The value should be half because of QPSK.)
- (*13) This was text proposal for HSDPA section 5.
- Ms. Evelyne Le Strat (Nortel) commented following 3 points.
1. Title of this section should be changed because we did not discuss the introduction of any use of multiple antennas at transmission nor reception. (we are not considering the normal diversity in this case.)
 2. Somewhere in the text, it should be mentioned that this feature is optional. We should not make this support mandatory otherwise we will forget all about the existing Node B.
 3. Backward compatibility at least from Node B hardware point view should be mentioned because it is obvious that depending on the hardware configuration we have chosen, there would be a significant impact on the PA distribution. Somewhere in some section, this compatibility issue should be mentioned.
- Chairman commented that the backward compatibility should be included in the separate section. He also pointed out "Release 3" should be replaced by "Release 99".
- There was a question regarding the relation of the number of the transmit antennas and that of the receive antennas. ~~∞~~ This would be clarified that the number of receive antennas must be at least that of transmit antenna.
- It was pointed out that there was no such thing as "conventional HSDPA"
- Chairman suggested an offline discussion during the coffee break and asked Mr. Ian Corden (Lucent) to revise the text proposal during the break.
- After the coffee break, Mr. Ian Corden presented the revision on the screen. Comments had been reflected. Chairman asked Mr. Ian Corden to provide the revision to the editor of the TR on HSDPA for inclusion into the next version of the TR.
- (*14) This was the revision of E-DSCH_TR_L1_V00.zip which had been discussed on Day2. (See No.56)
- Of course there had not been included the proposed texts from Ericsson (R1-00-1193 ~~∞~~ **R1-00-1302**) and Lucent (**R1-00-1220**) in this revision. Those would be included in the next round (**R1-00-1306**).
- It was pointed out that the sentence in section 4 "Background and Introduction" was somewhat misleading. It says "The work item is a feasibility study, where the current DSCH is proposed to be modified to support higher peak rates using techniques like adaptive modulation and coding, hybrid ARQ and other advanced features."
- Is this FEASIBILITY STUDY going to modify the current DSCH ?
- Chairman stated that the current DSCH would not go anywhere and it would remain as it is in future releases and

in that sense this sentence should be modified. Eventually it was decided to remove this sentence.

Mr. Erik Dahlman (Ericsson) commented that the first sentence in the introduction of **R1-00-1220** (Lucent) was excellent to be replaced with this whole section 4.

"The study item HSDPA proposes to study enhancements that can be applied to UTRA in order to provide very high speed downlink packet access."

And so was it decided.

Ms. Evelyne Le Strat (Nortel) commented that it should be explicitly mentioned that this report was RAN WG1 report because it would be confusion if all working groups used same title for their technical reports.

Chairman suggested to change the title as "*Physical Layer Aspects of UTRA High Speed Downlink Packet Access*".

The revision would be included in **R1-00-1306**.

- (*15) Mr. Erik Dahlman (Ericsson) presented this revision. At first, his revision (**R1-00-1302**, the revision of **R1-00-1193**. See No.64) was going to be reviewed but since this revised text proposal had already been implemented on the revised TR, the review of **R1-00-1302** was skipped.

In addition to the text proposals (**R1-00-1302** and rev. of **R1-00-1220**), the need for downlink signalling regarding CPICH/DSCH power ratio for QAM demodulation had been added. (in section 6.7.2) (See No.65)

Mr. Tim Mousley (Philips) commented in general that the text to some extent gave the impression that in some cases possible alternatives were being constrained somehow.

Chairman suggested that we should provide this for information for RAN WG2 indicating that this is the first TR and is subject for revisions so that they have a possibility to give us some comments if they have a problem.

The version would be v.0.1.0.

Mr. Tim Mousley commented that if approve this now and send this to RAN WG2 then we should put somewhere in the beginning that we have not fully approved this over the detail and this is only for information reflecting the current status.

Chairman answered that we could have that note in the LS. Mr Tim Mousley agreed. Chairman invited him to join the LS drafting work. The revision of this TR (the version number is to be changed to v0.1.0 and "Release 2000" in the cover sheet be replaced by "Release 4".) is in **R1-00-1306** and LS is in **R1-00-1317**.

The LS was reviewed and approved after a while. (See No.108)

8.2 Terminal power saving features

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
71	22	R1-00-1236	Packet Data Capacity, UE power consumption, optimization proposals	GBT	Noted	(*1) <small>Day2 13:53-14:30</small>
72	22	R1-00-1237	Packet Data Capacity, UE power consumption, optimization proposals			
73	22	R1-00-1264	Revision of TR25.840 Terminal Power Saving Features	Samsung	To be revised	(*2) <small>Day3 14:31-15:21</small>

- (*1) Mr. Kourosh Parsa (GBT) presented **R1-00-1237** on the screen.

5 recommendations were presented to improve packet capacity, throughput and UE power consumption.

1. Fast de-allocation of DSCH
2. Improvement of OLPC on FACH
3. Introduce CR on RACH
4. Avoid DCH/DCH for transfer of uplink bursty packet data
5. Avoid circuit mode (continuous dedicated uplink and downlink) in the future HSPD design.

There was some discussion between chairman and Mr. Kourosh Parsa about the intention of this proposal (recommendation) in terms of release issue.

Ms. Evelyne Le Strat (Nortel) commented that it is difficult for RAN WG1 to endorse any of the recommendations without having ideas of what the impacts on RAN WG1 specifications would be.

Chairman concluded that we should note the paper and this kind of topics could be considered in conjunction with RAN WG1 work but in practice if we go details of any of these items then they are to be towards release 5 work. These items could be covered perhaps in radio link performance enhancement rather than terminal power saving feature because the main point is the throughput enhancement and any of these but one do not have strong link to power saving features.

Mr. Kourosh Parsa stated that to some extent he would share the chairman's opinion however the terminal power saving aspect is much more important for these items than the throughput enhancement aspect.

In conclusion, the categorization depends on the further work on these items.

- (*2) This was the revision of technical report which had been approved in the previous meeting. This had been presented RAN plenay #9 and had received several comments. The revision had been done based on those comments. Main updated changes were as follows.

1. Emphasize gain in network side with gating: interference reduction or capacity increase
2. Change "higher layer signaling message" to "low rate data" that can be transmitted during gating.
3. RRC signaling to initiate and terminate gating (remove TFCI)
4. Rewording Embedded DPDCH Period

Mr. Vincent Belaiche (Mitsubishi) commented regarding the description in section 6.1.4.

"UE can determine the existence of downlink DPDCH frame by decoding downlink TFCI because downlink TFCI field is always transmitted."

that in fact TFCI is completely received at the end of the frame and so UE cannot detect the presence before the frame, it can only after having received the frame. UE needs to receive frame without knowing that it is present and this means performance degradation. Indeed even in non-gating mode, UE does not know the presence of the data part but here it is assumed to use the TFCI both to detect the presence of the data part and also to detect the pilot.

Samsung answered that they had already done the simulation on this issue and had presented the result in the year before.

There were a lot of questions and answers but finally following 2 points were set to be corrected.

1. State diagram should be modified so as to include the path from non-gating directly to downlink only gating. All transition cases have not yet covered.
2. The title of section 5.2.1.2. "UTRAN side" should be replaced by "Network side"

Chairman suggested that the revision (it would be v1.1.0) should be sent to RAN WG2. Samsung was asked to draft a small LS for this. The revision is in **R1-00-1304** and LS is in **R1-00-1305**. The revision was not reviewed. LS was reviewed on Day 3 and approved. (See No.105)

8.3 Radio link performance enhancements

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
74	27	R1-00-1232	TR 25.841 v1.0.1 DSCH power control improvement in soft handover	Nokia	Approved	(*1) <small>Day3 16:18-16:22</small>
75	27	R1-00-1222	Draft Work Item: Improved power control at power limits	Siemens Philips	Postponed	(*2) <small>Day3 16:23-16:39</small>
76	27	R1-00-1270	DSCH Tx Diversity Operation in SHO Region	Samsung	Noted	(*3) <small>Day3 16:41-17:01</small>

(*1) The TR was revised with respect to the RAN WG3 section based on the feedback received.

There was no comment and chairman suggested that we should send this to relevant working groups (RAN WG2 and RAN WG3) to see whether they are happy with the revision.

This revision was approved and therefore the version would be raised to v1.1.0. This would be in **R1-00-1307**.

The LS would be drafted by Mr. Jussi Kahtava (Nokia) in **R1-00-1308**. This was approved on Day 4 (See No.107)

(*2) This had a relation with the discussion in RAN WG1 #15 meeting. Siemens had proposed CR(**R1-00-1056**) in that meeting but it had been rejected for release 99 because it was too late. Now it was proposed for release 4.

There was a comment that whether we can accept this for release 4 time scale depends on the proposed solution which we do not know well yet really and therefore some simulation results or indication would be good input for the next meeting to know how much impact this proposal has on the physical layer specifications.

Siemens answered that they had provided the study on the impact on the specifications already in the previous CR (**R1-00-1056**) and they would provide some simulation results in the next meeting. They added that this proposal would not affect other WGs than RAN WG1 and RAN WG4.

Chairman concluded we would come back to this in the next meeting. He invited people to have chat with their RAN WG4 colleagues on this issue.

(*3) There was some discussion on the impact on the higher layer specifications.

After having discussion and opinion finally chairman concluded as follows

We still have problems that these would require changes in the other WGs and they will not do anything before they are told to do so by the RAN. Some kind of work item is expected however now explicitly we have told there is nothing coming out of release 4 on this issue. So I believe there is nothing can be done for this optimisation for release 4. We would like to put this under the part of the study towards release 5 for Tx-diversity improvements whether this is for 2 antennas or more antennas. We have stated that we would not do any modifications for the Tx-diversity between release 99 and release 4. So we have to target possible enhancement for release 5.

Mr. Hyeonwoo Lee (Samsung) answered that their main concern was that the current diversity scheme in soft handover was not optimised and there was some room for improvement and so they did not have a strong opinion that we should proceed this for release 4. He added that they could study in more detail probably for release 5.

8.4 Tx-diversity

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
77	26	R1-00-1180	Simulation parameters for Tx diversity simulations using correlated antennas	Siemens	Noted	No (*1) Comment Day3 17:02-17:04

(*1) Chairman commented that this could be considered as a part of simulation cases to proceed towards release5.

8.5 TDD 1.28 Mcchips functionality

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
78	21	R1-00-1282	New frame structure proposal for the 1.28 Mcps TDD option	Telia	LS will be produced	(*1) Day3 18:29-19:13
79	21	R1-00-1244	Coding of Paging Indicator for 1.28Mcps TDD (text proposal to working CR 25.222)	CWTS	Approved	No Comment Day3 19:15
80	21	R1-00-1245	Beacon function for 1.28Mcps TDD (text proposal to working CR 25.221)	CWTS	Approved	No Comment Day3 19:17
71	21	R1-00-1286	Transmit diversity for DL physical channels (text proposal to working CR 25.221)	CWTS	Approved	(*2) Day3 19:25
82	21	R1-00-1247	Downlink Transmit Diversity (text proposal to working CR 25.224)	CWTS	Postponed	(*3) Day3 19:26
83	21	R1-00-1265	Downlink Tx Diversity Schemes for 1.28Mcps TDD	Samsung	Postponed	(*4) Day3 19:47
84	21	R1-00-1287	The synchronisation channels (DwPCH, UpPCH) (text proposal to working CR 25.221)	CWTS	Approved	No Comment Day4 08:40
85	21	R1-00-1288	Modulation and combination of physical channels in the 1.28 Mcps TDD (CR25.223)	CWTS	Approved	No Comment Day4 08:42
86	21	R1-00-1250	Midamble allocation in 1.28 Mcps TDD (text proposal to working CR 25.221)	CWTS	Approved	No Comment Day4 08:46
87	21	R1-00-1283	Proposed modification on structure of TR25.842 (smart antenna)	CWTS	Approved	No (*5) Comment Day4 08:51

(*1) This paper presented the outline of new frame structure as a proposal for 1.28Mcps TDD living up to the requirement on co-existence and inter-working with the existing 3.84Mcps TDD. The number of time slots per frame had been proposed 15 (same as 3.84Mcps TDD) instead of 14. There took place a long discussion.

Major opinion was that

1. We should wait for the RAN WG4 answer. (RAN WG4 was conducting the study on the co-existence of the 3.84 Mcps TDD and the 1.28 Mcps TDD options in the unsynchronised case in adjacent bands.)
2. Although we understand the importance of co-existence issue, we cannot only consider about it. We also have to consider to make the efficient use of lower chip rate.
3. There is already one good proposal which is described in the technical report for which RAN WG1 has spent a lot of efforts.
4. The new proposal does not contain the details, investigations and so it is quite clear that it will take a long time for it to become the level of the current proposal.
5. So far we have not received any problem from RAN WG4. Let RAN WG4 make their study and if there was a problem we can deal with that. Let's wait for RAN WG4 answer.
6. It would be good to inform RAN WG4 of the new proposal because they can make the comparison. And with that comparison we can consider what the cost of the new proposal would be.

Draft LS would be produced by Mr. Peter Almers (Telia) in **R1-00-1313**. This was reviewed on Day 4 and approved in **R1-00-1321**. (See No.109)

Chairman commented that if there is a proposal, now it is more important for it to be implanted in the working CR rather than in the technical report.

(*2) There was a comment on closed loop Tx-diversity applicability to FPACH.

Chairman suggested that for the time being it would be useful to add a note saying "The closed loop Tx-diversity applicability for FPACH is to be verified." or something like that.

(*3) Samsung commented that before we conclude this we should have a look at **R1-00-1265**.

(*4) Several concerns were raised regarding relation between proposed TSTD scheme and power control.

Based on the comments chairman concluded that before we can accept this proposal we need to have clarification

on the interaction with the power control. And if the proponents do have the changes to the working CR, the relation to the power control also needs to be clarified in the working CR as well.

Samsung commented they wanted to postpone the conclusion on both this one and previous proposal (R1-00-1247) by the next meeting. Chairman agreed and stated that we would come back to this Tx-diversity issue in the next meeting.

(*5) Following after the decision in RAN plenary #9, FDD part had been removed.

Chairman commented that if we have not identified anything for 3.84Mcps until the point when we are supposed to submit this to RAN, then we should remove 3.84Mcps specific section as well.

Siemens agreed to this comment.

The deadline for this TR was RAN#11 (March, 2001)

8.6 Positioning

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
88	29	R1-00-1186	Initial Simulation Results for the OTDOA-PE positioning method	Panasonic	Noted	(*1) <small>Day4 11:20-11:58</small>

(*1) This proposal was originally presented in RAN WG1# 8 meeting (R1-99g57) and sent to RAN WG2 as they were responsible for positioning (R1-99h51). RAN WG2 sent us LS in our previous meeting asking for the layer1 aspects. Panasonic explained the basic concepts and their initial simulation results. This is proposed for FDD but it will work also in TDD.

Long discussion took place regarding the scheduling issue whether this was for release 4 or release 5.

Finally chairman commented that there was a mismatch in terms of WI description sheet because there is no FDD physical layer implication for UE positioning enhancement aiming release 4. Now there are various

interpretation possible regarding the scheduling issue. Chairman stated that he would contact with RAN WG2 chairman offline and try to clarify RAN WG2 status on this issue, what they are aiming on which time schedule, and what their intention really is. He added if he could get some information on this he would put it as well as his understanding on the e-mail reflector during the week next.

8.7 Uplink Synchronous Transmission

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
89	31	R1-00-1263	Feasibility study on USTS	SK Telecom	Noted	(*1) <small>Day4 12:00-12:21</small>

(*1) Chairman commented.

We have been set the milestone for this study report for March. We have not seen the outline of this study report yet and the proponents are requested to provide it in our next meeting. In the study report this kind of feasibility study should definitely be put so that the other working groups understand what the impact on their specifications are and can continue their further discussion smoothly. This would also be useful when we proceed further details in the CR based discussion. The study should cover the expected Node B hardware requirements. And of course if there were problems or concerns remaining from RAN WG1 perspective, those should be also accommodated in this study report respectively. This topic has been on the table for long time.

It was commented by Mr. Peter Chambers (Siemens) that the channel coding should be taken into account in the simulation (in the mixed situation). He also asked for clarification regarding "half of the UEs in SHO are not in USTS mode."

Nokia repeated same question as they had made in the previous meeting. 20ms was assumed for timing update rate compared to the current soft handover case. (a couple of hundreds ms.) \approx impact on Node B hardware.

8.9 Improved Common DL Channel for Cell FACH State

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
90	28	R1-00-1234	Improved OLPC for FACH	G BT	Noted	No (*1) Comment <small>Day4 12:22-12:28</small>

(*1) Chairman suggested that people should communicate with their RAN WG2 delegates after having a look at this document and finding what had been proposed and interest in order to find RAN WG2 opinion on this. If they thought that this would make sense and they wanted us to assess some aspects that have been raised in this paper we would come back to this.

Day 4, started at 08.38

9. Approval of postponed/revised Release –99 CRs.

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
91	XXX	-	25.926	R1-00-1314	Clarification on the TTI simultaneousness in the transport channel parameters	F	Mitsubishi	To be revised	(*1) 09:06-09:34
92	-	-	-	R1-00-1294	References for SSDT processing	-	NEC	Noted	(*2) 10:00
93	128	1	25.214	R1-00-1226	Clarification of downlink quality measurement in SSDT	F	NEC	Approved	
94	078	-	25.215	R1-00-1301	Correction to measurement "Rx-Tx time difference"	F	QUALCOMM	To be revised	(*3) 10:14
95	020	1	25.225	R1-00-1319	Clarification of measurement reference points	F	Siemens	Approved	No (*4) Comment Day4 12:50

(*1) This was the revision of **R1-00-1300**. This was distributed with the filename "R1-00-xxxx CR25926-xxx.zip" on the Day4 morning CD-ROM. When Mr. Vincent Belaiche (Mitsubishi) made the revision he did not have the T-doc number so he distributed revision without T-doc number. T-doc number R1-00-1314 was allocated later by the secretary.

Mr. Richard Burbidge (Motorola) commented

- "around an arbitrary time instant". It is not appropriate for parameter name, we should try to find better wording
- "maximum number of transport block" can be misleading

Chairman suggested Mr. Vincent Belaiche gathers comments and put the revision on the e-mail reflector including the comments received and then we can discuss and send it RAN WG2 in the beginning of our next meeting.

Because we were already on Day4 at that time and it was quite clear that even if we sent LS to RAN WG2 they would not have a chance to do anything on that. Chairman asked Mr. Vincent Belaiche to prepare both CR and LS cover sheet for the next meeting. T-doc number **R1-00-1315** was allocated for this revision.

It was confirmed that there was no problem regarding the technical issue with this CR but just editorial elaboration would be needed.

But it turned out that RAN WG2 would have their next meeting one week earlier than RAN WG1.

As an alternative chairman suggested that after having e-mail reflector checking, an individual company, not necessary Mitsubishi could have input to the next RAN WG2 meeting directly explaining that the principle has been discussed and agreed in the RAN WG1 #16 meeting and e-mail reflector but there would be some possibility that this would be revised in terms of editorial elaboration. He added if we found the problem we could put it on-hold in the next RAN plenary. So LS would not necessary need to be prepared in the next meeting.

(*2) This paper had been prepared based on the Day1 discussion. (See No.20)

3 questions that had been raised in Day1 were answered in this paper.

Mr. Serge Willenegger (QUALCOMM) who raised major concerns on Day1 thanked NEC for the information they provided and stated that after having the offline discussion he could agree to the CR 25.214-128.

CR 25.214-128r1 (**R1-00-1226**) was reviewed again in succession and approved.

After CR had been approved Mr. Vincent Belaiche (Mitsubishi) commented regarding the Annex B.2, 2nd paragraph which says "the UE should estimate SIR_{est} from the downlink signals of the primary cell" that this is unclear because UE cannot know which is the actual primary cell.

Chairman agreed to this comment however stated that this was an informative annex and we could approve this now. Clarification could be done later.

(*3) This CR was based on the discussion paper (**R1-00-1100**) which had been reviewed in RAN WG1#15 meeting.

Related LS (**R1-00-1138**) had been sent to RAN WG2, RAN WG3 and RAN WG4 in that meeting. We had received already a positive answer from RAN WG4 (**R1-00-1203**, R4-000717 See No.5) and RAN WG2 was discussing in the parallel session positively. This CR was based on these backgrounds. 2 type of downlink path had been defined.

Ms. Sarah Boumendil (Nortel) suggested that "during the measurement period" should be removed from the definition because the first detected path in time will not stay the same during the measurement period.

Mr. Serge Willenegger (QUALCOMM) agree to this suggestion and so this was to be revised. The revision would be found in **R1-00-1318**. This would be reviewed in the next meeting.

(*4) This was the revision of **R1-00-1008**. This was the TDD version of **R1-00-1256** (CR 25.215-077r1) (See No.41) clarifying what is meant by the term "antenna connector" by adding a reference to the relevant RAN WG4 specifications.

R1-00-1259 withdrawn Mirko announced at 10:16

R1-00-1130 interdigital is withdrawn

R1-00-1181 will be postponed to RAN WG1 #17 (It was informed to me on Day3 at 09:40)

R1-00-1216 is postponed to the next meeting, Peter announced.

10. Approval of the liaison statements as output from WG1

No	Discussed Tdoc	Source	To	Title	Approved Tdoc	Notes
96	R1-00-1225	Alcatel	R3	Proposed LS on power balancing	R1-00-1254	(*1) <small>Day1 11:33</small>
97	R1-00-1168	Siemens	R2 Cc:R3	Answer to LS on R00' work on UE positioning in UTRA	R1-00-1255	No (*2) Comment <small>Day1 11:37</small>
98	R1-00-1262	Samsung	R2 Cc:R4	LS of Concern on RRC Blocking in Gated DPCCCH Transmission	R1-00-1285	(*3) <small>Day2 14:47</small>
99	R1-00-1252	Ericsson	R4 Cc: R2,R3	Answer to LS on UTRAN RSSI	R1-00-1290	(*4) <small>Day2 16:13</small>
100	R1-00-1196	Ericsson	R2 Cc: R3,R4	LS on power control preamble length	R1-00-1293	(*5) <small>Day2 17:14</small>
101	R1-00-1298	Nokia	R2 Cc: R3	LS on the support of secondary scrambling codes and phase references	R1-00-1309	(*6) <small>Day3 17:15</small>
102	R1-00-xxxx	Ericsson	R2	LS on Blind transport format detection limitations	R1-00-1310	(*7) <small>Day3 17:40</small>
103	R1-00-1281	Ericsson	R2, R4	LS on compressed mode patterns	R1-00-1311	(*8) <small>Day3 17:51</small>
104	R1-00-1292	Mitsubishi	R2 Cc: R3,R4	LS on Computation of initial value of SIR_{target} in UE	R1-00-1312	No (*9) Comment <small>Day3 18:10</small>
105	R1-00-1305	Samsung	R2,R3,R4	LS on revision of TR 25.840 V1.1.0 on Terminal Power Saving Features	R1-00-1305	No (*10) Comment <small>Day3 18:27</small>
106	R1-00-1272	Siemens	R3	LS to WG3 on Radio Link Initialisation	R1-00-1320	(*11) <small>Day4 10:37</small>
107	R1-00-1308	Nokia	R2, R3	Liaison on the status of DSCH power control improvement in soft handover	R1-00-1308	No (*12) Comment <small>Day4 11:10</small>
108	R1-00-1317	Motorola	R2	LS on Technical Report on HSDPA	R1-00-1317	No (*13) Comment <small>Day4 11:12</small>
109	R1-00-1313	Telia	R4	LS on a Proposal for a new frame structure for the 1.28 Mcps TDD option	R1-00-1321	No (*14) Comment <small>Day4 11:15</small>
110	R1-00-1239	Siemens	R3	LS from R1 to R3: Timeslot ISCP for TDD Node B downlink power control	R1-00-1239	No (*15) Comment <small>Day4 11:19</small>

- (*1) This was an answer LS to the LS (**R1-00-0982**, R3-001966) we received from RAN WG3 in the previous meeting. In the last meeting we could not get conclusion. In this LS, it is clearly stated as follows as the viewpoint of RAN WG1.
" RAN-WG1 studied the impact of synchronisation of power balancing on network performance and concluded that it is essential to include this feature in R99, i.e. measuring P_{min} in synchronised way by all NodeB's "
 Mr. Tim Mouldsley (Philips) commented regarding the following sentence that it was somewhat misleading because TPC command error rate depends on the other things as well.
The TPC command error rate depends on the setting of power ratios between DPCCCH and DPDCH.
 He added that maybe this should be modified as "depends on such as ----".
 This comment would be reflected. The LS was approved with no other comments.
- (*2) This was an answer LS to the LS (**R1-00-1133**, R2-001781) we received from RAN WG2 in the previous meeting. A paper (**R1-00-1123**) which had been reviewed in the previous meeting regarding "*Air Interface Methods for TDD Location Services*" was attached to this LS for information. Approved with no comments.
- (*3) In this LS Samsung proposed the answer to the concerns raised against the technical report on " Terminal Power Saving Features" in RAN plenary #9 regarding following 2 points.
 1] Possibility of RRC blocking in gated DPCCCH transmission scheme
 2] UE Power limitation in cell boundary
 Ms. Evelyne Le Strat (Nortel) questioned whether the problem of RRC blocking had been related only to the reduced power control rate or there had been other problems. She stated that she thought the general concern had also been the problem with a detection that DPCCCH gating was interrupted or that it should be interrupted and then which side would decide it. Are we clear about the robustness problem with the state transmission ?
 Mr. Hyeonwoo Lee (Samsung) answered that they had provided this answer for the concerns raised in RAN plenary #9 meeting and at least for those, this LS covered the questions. He added that Samsung had prepared the revision of the technical report.
 There was one question where the figure of "1~2dB" degradation came from. Samsung explained it came from the simulation result which had been submitted in the previous meeting together with the technical report.

- Chairman suggested that one statement should be added at the end that we would provide the revised technical report later as well.
- Mr. Ian Corden (Lucent) commented that the EMC problem had also been discussed in RAN #9 and so we should send LS to ask the discussion to RAN WG4.
- Chairman answered there had been already a study in EMC sub working group in T group and at that time there was no concrete comments or concerns raised from them.
- RAN WG4 would be added to the destination of this LS as CC.
- (*4) This was the answer LS to **R1-00-1205**(R4-000743) (See No.7)
 Responding their request, CR 25.215-075 (**R1-00-1251**) had been approved in RAN WG1. (See No.29) This CR is to be attached to this LS.
 Chairman suggested that we should put question on "linear average" and proposed following sentence to be inserted in the middle of the text.
 " Finally, RAN WG1 would like RAN WG4 to verify that the use of the term linear average is correct in case of receiver diversity."
- (*5) There were some rewording suggested. It was also suggested that this should be sent to RAN WG3 and RAN WG4 as well.
 Ms. Evelyne Le Strat (Nortel) pointed out that this LS contained functional change and not correction.
 Chairman agreed to this comments and stated in any case it was something we have to figure out by our next meeting. It is good to have checking from other working groups. If RAN WG2 feels that this is a functional change then they will let us know their opinion.
 Chairman proposed that we should send this LS and we should worry whether this is a functional change or not when we are preparing the actual CR.
- (*6) This LS was based on the CR (CR 25.211-079 and CR 25.213-037). (See No.33, 34 and 44).
 Chairman suggested that we should send this to RAN WG3 as CC.
- (*7) This LS was based on the CR (CR 25.212-094, **R1-00-1295**) (See No.47)
 Mr. Dirk Gerstenberger (Ericsson) commented after presenting the LS that the last sentence in the second paragraph was not correct and he would like to delete it.
 "as well as it could trigger unnecessary retransmissions."
 This was deleted.
- (*8) This LS was based on the CR (CR 25.215-069, **R1-00-1291**) (See No.48)
 Chairman recommended that one sentence should be added which says
 "*RAN WG1 has also removed the measurement purpose "other" from their specifications*"
 in order to answer the LS from RAN WG4 (**R1-00-1303**, R3-000681) (See No. 8)
- (*9) This LS was based on the discussion paper in **R1-00-1279** which had been discussed on Day2. (See No. 31)
- (*10) This LS was informing that we had produced the revision of the TR for Terminal Power Saving Features. (See No.73)
 The revised TR (v.1.1.0 in **R1-00-1304**) was attached.
 Since document had not been distributed, the same T-doc number as draft LS was used for the approved version.
- (*11) This LS was results after the discussion of **R1-00-1215**(CR 25.214-135)(See No.22).
 Although chairman praised the drafting work done by Mr. Peter Chambers (Siemens) Mr. Dirk Gerstenberger (Ericsson) commented that there quite strong words had been used and they should be softened.
 After a long discussion this LS was agreed with following modification.
 - 1st sentence : "request" \neq "ask"
 - 2nd bullet point : "RAN1 notes that this wording explicitly specifies layer 1 behaviour"
 \neq "It is the understanding of RAN1 that this wording specifies layer 1 behaviour"
 - "RAN1 asks RAN3 to describe the benefit of this TPC bit forcing function" was removed from the last paragraph. (It was mentioned in the first bullet point already.)
- (*12) This LS was the result of the discussion **R1-00-1232** (Revised TR on DSCH power control improvement in soft handover) (See No.74) and just informing to RAN WG2 and RAN WG3 that we had made a revision (v.1.1.0).
 The revision of the TR was attached to the LS.
- (*13) This LS was informing RAN WG2 that RAN WG1 had started work on a WG1 technical report on HSDPA and v.0.1.0 (**R1-00-1316**)TR was attached. (See No.70)
- (*14) This LS was the results of discussion of **R1-00-1282** which was discussed on Day3 evening. (See No.78)
- (*15) This was the answer LS to RAN WG3 LS(**R1-00-1177**, R3-002364) (See No.2)

11. Approval possible release 4 CRs/TRs

R1-00-1231 *Modifications to UE capability for 25.926 for Release 4 / Nokia* (Day4 08:57-09:04)

This paper presented the discussion and CR for release 4 UE capabilities. Following 2 points were addressed.

- DSCH capabilities
- CPCH capabilities

There was a comment that we need to have time to discuss this.

Chairman agreed and stated that we did not need to rush this. We would come back to this issue in the next meeting.

12. Any other business

R1-00-1299 *Proposal for flexible position BTFD / Mitsubishi* (Day 4 12:29– 12:47)

Mr. Vincent Belaiche (Mitsubishi) presented this paper. This paper proposed blind transport format detection with flexible positions in order to achieve mapping of service such as speech with a SF of 256 in downlink. Details of the proposal and impact were presented.

After presentation chairman suggested that this is something that needs to be studied. To see what is meant and also to give people time to have views of their implementation colleagues, we had better postpone this to the next meeting.

Mr. Vincent Belaiche asked people to give him comments/questions on the e-mail reflector before the next meeting to have better understanding on the technical issues.

Chairman agreed to this comment and invited people to do so and added we would discuss this in the next meeting.

12.1 WG1 meeting schedule in year 2000 -2001(Tentative)

Meeting	Month	Date	Location	Notes
RAN WG1 #10	January	18-21	China	Host Nokia
RAN WG1 #11	February	29 – March 3	USA	Host T1P1
RAN #7	March	13-15	Madrid, Spain	
RAN WG1 #12	April	10-13	Korea	Host TTA
RAN WG1 #13	May	22-25	Tokyo, Japan	NTT DoCoMo
RAN #8	June	21-23	Dusseldorf, Germany	
RAN WG1 #14	July	4-7	Finland	Host Nokia
RAN WG1 #15	August	22-25	Germany	Host Siemens
RAN #9	September	20-22	Hawaii	
RAN WG1 #16	October	10-13	Pusan, Korea	Samsung, LGIC
RAN WG1 #17	November	21-24	Sweden	Ericsson
RAN #10	December	6-8	Bangkok, Thailand	Unisys
RAN WG1 #18	January	16-19	U.S.A. With R4	T1P1
RAN WG1 #19	February	27 – March 2	T.B.D.	Host needed
RAN #11	March	14-16	Palm Springs, CA U.S.A.	T1
Physical Ad Hoc	April	Tentative		(*1)
RAN WG1 #20	May	21-25 (5days)	Cheju, Korea withR2,3	Samsung
RAN #12	June	13-15	Stockholm, Sweden	Ericsson
RAN WG #21	June	26-29	T.B.D.	Host needed
RAN WG #22	August	27-31	T.B.D.	Host needed
RAN #13	September	19-21	Beijing, China	Lucent, CWTS
RAN WG #23	October	8-12	T.B.D.	Host needed
RAN WG #24	November	19-23	T.B.D.	Host needed
RAN #14	December	12-14	Tokyo, Japan	ARIB, TTC

(*1) Whether this physical Ad Hoc is to be held or not is depending on the status of the Release 4 items. Since HSDPA is the biggest Release 4 topic in RAN WG1, it would be most likely the candidate. RAN WG1 chairman will coordinate with other WGs chairmen on this Ad Hoc.

Annex A : List of approved CRs (Approved in RAN WG1 #16 meeting)

A.1 TS 25.211

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.211	079	2	R1-00-1296	Clarification of downlink phase reference	F	Ericsson	16-43
2	25.211	080	-	R1-00-1197	Clarification of descriptions of power control preambles	F	Philips	16-13
3	25.211	083	1	R1-00-1260	DL Transmission in the case of invalid data frames	F	Philips	16-45
4	25.211	084	-	R1-00-1194	Clarification of figure 28	F	Ericsson NEC	16-11
5	25.211	087	-	R1-00-1289	RACH message part length	F	Nortel	16-46

A.2 TS 25.212

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.212	094	2	R1-00-1295	Correction of BTFD limitations	F	Ericsson	16-47
2	25.212	096	-	R1-00-1227	Compressed mode by puncturing	F	Nortel Interdigital	16-35
3	25.212	097	-	R1-00-1277	Clarification on the Ci formula	D	Mitsubishi	16-36

A.3 TS 25.213

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.213	037	1	R1-00-1297	Proposed removal of the option of secondary scrambling code for some downlink common channels	F	Nokia	16-44

A.4 TS 25.214

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.214	128	1	R1-00-1226	Clarification of downlink quality measurement in SSDT	F	NEC	16-93
2	25.214	129	-	R1-00-1183	Formula typography and reference corrections	F	Siemens	16-21
3	25.214	130	1	R1-00-1274	Radio link establishment and sync status reporting	F	Ericsson	16-39
4	25.214	131	-	R1-00-1197	Clarification of descriptions of power control preambles	F	Philips	16-12
5	25.214	132	-	R1-00-1207	Uplink power control in compressed mode	F	Siemens Alcatel	16-23
6	25.214	133	-	R1-00-1213	Correction of RACH/CPCH physical random access procedure	F	Panasonic	16-18
7	25.214	134	-	R1-00-1214	Correction of uplink power control algorithm 2	F	Panasonic Philips	16-19
8	25.214	136	1	R1-00-1273	Clarification of RACH behaviour at maximum and minimum power	F	Siemens	16-38

A.5 TS 25.215

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.215	069	3	R1-00-1291	Support of parallel compressed mode patterns	F	Ericsson	16-48
2	25.215	074	1	R1-00-1195	Clarification of SIRerror measurement during compressed mode	F	Ericsson	16-40
3	25.215	075	1	R1-00-1251	Definition of UTRAN RSSI	F	Ericsson	16-29
4	25.215	076	1	R1-00-1257	Clarification of GPS timing measurements	F	Ericsson	16-42
5	25.215	077	1	R1-00-1256	Clarification of reference point for UE/UTRAN measurements	F	Ericsson	16-41

A.6 TS 25.221

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.221	035	1	R1-00-1009	Clarifications on Midamble Associations	F	Siemens	16-49

A.7 TS 25.222

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.222	049	-	R1-00-1277	Clarification on the Ci formula	F	Mitsubishi	16-37

A.8 TS 25.225

No	Spec	CR	R	R1 T-doc	Subject	C	Source	Ref.
1	25.225	018	1	R1-00-1007	Corrections and Clarifications to 25.225	F	Siemens	16-51
2	25.225	019	-	R1-00-1253	Corrections and Clarifications to 25.225	F	Siemens	16-50
3	25.225	020	1	R1-00-1319	Clarification of measurement reference points	F	Siemens	16-95

(Total 27 CRs were approved.)

Annex B The Participants List

Name	Company	Fax	Telephone
Aksentijevic Mirko	Nokia	358951138452	358951138829
Alexandre Da Rocha	Alcatel	33155664450	33155667880
Almers Peter	Telia	4640307029	4640105141
Bader Uwe	Rohde & Schwarz	4989412913443	4989412913462
Bahrenbung Stefan	Siemens	861064329569	861064361888
Barberis Sergio	CSELT	390112285582	390112287309
Belaiche Vincent	Mitsubishi Electronic	33299274771	33299274139
Billy Nicolas	Alcatel	33130779430	33130775464
Boumendil Soroh	Nortel Networks	33139445252	33139444332
Bruno Jechoux	Mitsubishi Electronic	33299842115	33299841123
Burbidge Richard	Motorola	441256790190	4412567906622
Burkert Frank	Siemens AG	498972246489	498972254344
Byung-Jae Kwak	Samsung Electronics		82317796843
Cha Inhyok	Lucent Technologies	19734485260	19734267063
Chambers Peter	Roke Manor Research Ltd.	441794833589	441794833489
Czapla Liliana	ITC	6316220103	6316224298
Dae-Soon Cho	ETRI		
Dahlman Erik	Ericsson	46858531480	4687641377
Dasapidis Makis	Panasonic	441635871345	441635875528
De Benedittis Rossella	Siemens	390227338016	390227338059
Dick Stefan	InterDigital Communications Corp.	6316220103	631-622-4298
DiFazio Robert	LayerOne Wireless Technology	6315927319	6315927300
Dirk Gerstenberger	Ericsson		
Dong Chen	Siemens		
Dong-Seung Kwon	ETRI		
Duk-kyung Kim	SK Telecom		
Falaki Reza Hamid	Lucent Technologies	441793883391	441793883992
GerkeSpaling	Ericsson	31534505148	31534505505
Gerstenberger Dirk	Ericsson Radio Systems	46858530650	46858533901
Ghosh Amitabha	Motorola Inc.	8474350789	8476324121
Goudard Nathalie	Wavecon	33146290808	33146295628
Griguer Marc	France Telecom	33145294194	33145296736
Han-II Yu	Samsung Electronics		
Hiramatsu Katsuhiko	Panasonic	81468405183	81468405161
Hokyu Choi	Samsung Electronics	82317798003	82317796624
Hoyneck Andreas	Siemens AG	493038625548	493038623054
Hu Jinling	CWTS/CATT	861062304701	861062304466
Hyeon-Woo Lee	Samsung Electronics	82317798003	82317796613
Ian Corden	Lucent Technologies		
Il-Kyu Kim	ETRI		
Ito Kenji	Siemens K.K.	81354238726	8135428520
Itoh Katsutoshi	SONY Corporation	81357825213	81357825199
Jae-yoel Kim	Samsung Electronics	82317798003	82317796885
Jae-Yong Lee	Hyundai Electronics		
Jechoux Bruno	Mitsubishi Electronic	33299842115	33299841123
Ju-ho Lee	Samsung Electronics		82317796843
Kahtava Jussi	Nokia	81357406833	81357497471
Kawabata Hirashi	NEC Corporation	81459392684	81459392653
Kim Bong Hoe	LG Electronics	82314502945	82314507912
Kim Jung Gon	LG Telecom	82237771089	82237771142
Kistowski Dirk	T-Mobil	492289361245	492289361207
Koulakiotis Dimitris	Samsung Electronics UK	441784428629	441784428629
Kourtis Stamatis	Motorola	441296380320	441296380362
Kowalewski Frank	Siemens AG	4953419062011	4953419062011
Krauss Herbert	Phillips Semiconductors	4991120011102	4991120011239
Kwon Hyuk Joon	LG Electronics	82314507912	824502906
Lax Alexander	3G com (UK) Ltd	441225789109	441225789110
Lee Jeho	LG Electronics Inc		

Name	Company	Fax	Telephone
Lee Jin Sock	Telecom Modus LTD	441372804804	441372804877
Lee Yong Suk	Samsung Electronics	0312809207	031/2808175
Li Chenguang	CWTS/CATT	861062304701	861062304466
Li Feng	CWTS/CATT	86106230470	861062304466
Lyu Dugin	LG Electronics Inc		
Makis Kasapidis	Panasonic		
Mardani Reza	Lucent Technologies	9734485260	9734485249
Marian Rudolf	Mitsubishi Electronic	33299842115	33299841123
Mauchsch Thomas	Rohde & Schwarz	4989412913443	4989412913462
Mochizuki Takashi	NEC Corp.	81459392713	81459392672
Moulsley T.J.	Philips Research Lab	441293815500	441293815000
Naito Kosuke	NEC Corp.	81459392713	81459392672
Obuchi Kazuhisa	Fujitsu	81468375348	81468375341
Oestreich Stefan	Siemens	498972224450	498972221480
Okumura Yukihiko	NTT DoCoMo Inc.	81468403733	81468403100
Onozawa Hirashi	Texas Instruments	812985011729	81298502672
Oshisa Olufemi	BT	441473623683	441473605671
Owoye E (Manny) Gbenga	Motorola Inc.	8158843736	8158843704
Pace Alessandro	Telecom Italia Mobile	390639009315	390639009044
Parsa Kourosh	Golden Bridge Tech	7328709008	7327289615
Pebkomen Kari	Nokia Japan Co., Ltd.	81357406833	81357597001
Peter Voltz	LayerOne Wireless Technology		
Pezenec Le Yannick	Vodafone Group	441635673969	441635685870
Pollakowski Olaf	Siemens AG	493038625548	493038632928
Prelorentzos Nikos	Panasonic	441635871345	441635870465
Purat Marcus	Siemens AG	493038625548	493038625367
Putakata Toshiyuki	NTT DoCoMo Inc.	81468403840	81468403971
Ralf Wiedmann	Siemens AG	498972227089	498972261694
Robert Love	Motorola		
Roh Dong Wook	LG Electronics Inc		
Sambhwani Sharad	National Semiconductors	7327441441	7327441444
Sandell Magnus	Lucent Technologies	441793897426	441793897273
Sang-Hwan Park	Samsung Electronics		
Sapienza Marcia	ST microelectronics	390957407717	390957407627
Schuffenecker Bruno	France Telecom	33145294294	33145296736
Seki Hiroyuki	Fujitsu	81447542646	81447542647
Senninger Christian	Siemens AG	498972227089	498972234221
Seong-Chul Cho	ETRI		
Ser Wah Oh	ST microelectronics	657750256	658709255
Shinobu Ikeda	ETSI	33493652817	33492944266
Studle Ville	Nokia	358105054283	358503073923
Strat Le Evelyne	Nortel Networks	33139445252	33139444332
Sung-il Park	Samsung Electronics		
Sung-Jin Kim	Samsung Electronics		
Sung-Kyu Park	Hyundai Electronics		
Sung-Lark Kwon	LG Electronics Inc		
Sung-oh Hwang	Samsung Electronics	82317798003	82317796626
Suzuki Hidetoshi	Panasonic	81468405183	81468405164
Takano Yannick	Mitsubishi Electronic	81468476222	81468476012
Tatesh Said	Lucent Technologies	441793883391	441793883951
Tomatis Fabrizio	SEMICONDUCTORS	33492961101	33492961229
Toskala Antti	Nokia	358951138452	359951138221
Tyler Brown	Motorola		
Usuda Masafumi	NTT DoCoMo Inc.	81468403840	81468403190
Voltz Peter	LayerOne Wireless Technology	6315927319	6315927300
Willenegger Serge	Qualcomm	41244363542	41244363541
Yang Guiliang	CWTS/CATT	861062304701	861062303122
Yang-Hee Suh	Samsung Electronics	82317798003	82317798493
Yong-jun Kwak	Samsung Electronics		82317796626
Yuro Lee	Hyundai Electronics		
Yu Xiaoyong	Motorola Inc.	8474352413	8476327421

