CEPT-CCH-GSM
Report from meeting no 15

GSM Doc 200/87

Status: approved

Place:	*London*
Date:	1987.10.12 - 16
Participants:	see annex 1
Agenda:	see annex 2
Documents:	see annex 3

1 OPENING OF THE MEETING

Mr Temple wished the delegates of GSM and in particular the industry representatives welcome to London. Now that the Memorandum of Understanding has been signed, the present meeting of GSM, he said, was the beginning of a new phase in the project, requiring more realism than usually in the CEPT projects.

2 APPROVAL OF THE AGENDA

The approved agenda appears as Annex 2 to this report.

3 LISTING OF DOCUMENTS

(ref. annex 3)

The documents to be considered during the meeting were GSM Doc's 83/87 - 129/87.

4 REPORT FROM GSM MEETING No 14

The report was corrected and approved. The number of the document is GSM 117/87.

5 INFORMATION ON THE MEMORANDUM OF UNDERSTANDING

The Chairman informed about the background, the purpose and the content of the Memorandum of Understanding which has now been signed by 13 countries, and the new situation the MoU creates.

6 REPORTS FROM SUBGROUPS AND OTHER BODIES

All documents were briefly introduced and comments for clarification were made. These are reported under agenda item 7 below.

7 DISCUSSION AND DECISIONS

a Services and Facilities

Doc 116/87 was introduced. On a question regarding the possibility of having several classes of MS's, Mrs Alvernhe explained that this was only an idea proposed in WP1 and it was not an agreed view of WP1 that the GSM system should allow for this.

The remark was made that the titles of Rec's 02.16 and 02.17 should be modified in order to avoid confusion.

9.6 kbit/s transparent data service

Doc 118/87 from Italy was considered and an extensive discussion took place whether or not the 9.6 kbit/s service for accessing the PSPDN should be classified as E3 or A. The present (WP1) clasification is E. Views were very divided on the feasibility and reliability of such a service, and it was found that it would not be possible to assess the performance of the service in due time before the approval of Rec 02.02. Arguments of both technical and commercial nature were put forward, but GSM was not able to reach an agreement on the matter. It was agreed, however, that the work on the service should be continued.

Going through the WP1 recommendations, the following was noted:

Rec 01.05

Figure 1 is missing.

Rec 01.06

No comments were made.

Rec 02.04

Section 3 and some of the definitions of the supplementary services are not yet stable.

The method of defining services by a set of attributes is used for bearer services and teleservices, but for the supplementary services this method might be abandonned in the future.

The call barring service (5.22) caused a long discussion due to the fact that the service might also be implemented in the MS, and due to some confusion with the possibility (of the network operator) to block black listed subscribers. The meeting was told that implementation of call barring in the MS is specified in Rec 02.07 and blocking of black listed subscribers is dealt with in the 12 Series of Rec's. Problems with increasing signalling load were mentioned. The possibility of making the service optional to the network operator was discussed, but in that case problems will occur when a MS is roaming into another network if the call barring service is not implemented in that network.

GSM was not able to reach an agreement on the matter.

Rec 02.09

Editorial improvements to section 3.4.1 are needed.

Explanations to table 1 were given.

Section 3.2.4 should be reconsidered in order to take the decisions of the GSM Madrid meeting into account. (Call set-up allowed when no authentication possible due to a malfunction in the network).

Rec 02.10

Considering that serveral PLMN operators do not have any official status within the ITU as RPOA's, the recommendation needs to be further develloped in the area of business policy. This has some relation to the question of accounting.

Rec 02.11

The remark was made that the term "registration" (section 6.1) was not appropriate in this context.

Section 7 should be deleted.

Rec 02.12

For clarification it was mentioned that "GSM Mobile Station" is by definition a type approved device.

Para 3 of section 0 should be moved to Rec 02.10.

Rec 02.13

The term "international" in the table of page 3 should be replaced by "foreign".

The "administrative link" mentioned in section 5 of the recommendation refers to the type of MS's in which the IMSI and the IMEI are always the same.

The table on page 3 which specifies the different subscription choises caused an extensive discussion due to the fact that some delegates were concerned about the commercial barriers that this approach could rise. It was proposed that all extra costs due to internetwork roaming should be covered by call charges, thus avoiding that the internetwork roaming facility become a subscribed service. GSM concluded that WP1 should study the question further with the aim to stimulate the use of the international roaming service.

The text on Emergency Calls (section 3) seems to be not entirely consistent with other recommendations. WP1 was asked to revise the text.

Rec 02.14

No cmments were made to this recommendation.

Rec 02.15

This recommendation needs to be discussed with other CEPT groups.

Rec 02.16

This document will need further refinement, and for the time being it should only be regarded as a first draft submitted to GSM for examination, not for approval as earlier stated.

On the question of a centralized body (not to be understood as a new body necessarily) for up-dating of recommendations, handling of type approvals etc, the view was expressed that WP1 should not put too much effort in this area since there will probably be an EEC directive on this during 1988. WP1 should continue the work assuming that such a body will exist.

Several objections were rised against the idea of black listing IMEI's (bottom of page 3).

Regarding allocation of IMEI number series to manufacturers, GSM was of the opinion that this should be the task of the future centralized body.

Rec 02.20

The view was expressed that a few seconds of conversation free of charge should be allowed in the beginning of those calls for which the mobile user will have to incure additional "roaming costs". The purpose of this would be to give him the opportunity to hang up if he does not wish to complete the communication. GSM decided that it is up to the indivudual network operator to implement this facility if desired.

The term "Subscription rental" should be replaced by "Subscription fee".

The ideas behind the accounting requirements for access (section 2.1 para 2) were explained and got the support of most delegations. However, WP1 was asked to study whether those requirements are compatible with the ITU agreements.

b Access technique, modulation and channel coding

The status report of the group, Doc 115/87, was introduced by Mr Maloberti. Particular emphasis was put on the production of validation hardware and the status of the recommendations on channel coding. Several channel coding schemes have now been proposed to other groups for various purposes.

Since the error protection for the speech communication is now quite strong, there is as risk of a lack of balance between the speech communication and the signalling in respect of error immunity.

WP2 is now a bit behind the time schedule. However Mr Malobeti beleived that the group will be able to catch up and finalize its recommendations until January 1988.

The Rec's of WP2 in the 05 series (Rec's 05.01, 05.03, 05.04 and 05.08) were presented and discussed. On Rec 05.08 "power control" GSM agreed that absolute values for the output power should be statad instead of attenuation steps. Sections 4 and 6 of the recommendation need coordination with WP3 in order to avoid overlap. The same applies to Rec 05.06.

Rec's 04.04 and 05.01 should be renamed in order to avoid confusion.

The question of the relative robustness of speech and signalling was discussed. Several speakers were in favour of having a slightly better robustness for the signalling than for the speech, but in order to avoid setting up calls when the conditions are to bad for communication, some other criterion is needed to decide whether the call shall be established. Mr Maloberti told that it is possible to improve the protection of the signalling, and wished WP3 to provide WP2 with the requirements on the Block Erasure Rate vs C/I and a definition of the frame length.

Simulations of the system with the presently assumed channel codec are possible to perform quite quickly.

c Signalling and protocols

The status report of the group (Doc 120/87) identifies three problems to be solved by GSM. On the discussion on these problems the following was noted:

Elaboration of Rec 03.06

After some discussion, during which it was noted that no Administration was willing to submit contributions in the field of availibility and reliability, that a recommendation on this matter would not have any impact on the technical solutions and the tendering specifications, that very little material of relevance could be fetched from the CCITT reports and that views were divided on the question of which system elements will need this specification in the first place, GSM agreed that Rec 03.06 should be given a very low priority.

It was noted, however, that the O&M group will need some specification of this type for the elaboration of Rec's 11.30, 11.31 and 11.32. The figures obtained so far will be used.

Validation of protocols

The Administrations of France and FRG will be able to contribute in this area. The Administration of UK wll investigate the possibility to contribute on simulations of restauration of location registers in the VLR and the HLR, in the light of the fact that UK has earlier been able to contribute on traffic simulations.

DCCH

The problem was described by Mr Audestad, and a document (124/87 from France) outlining the proposal was circulated. It was stressed that the DCCH has been proposed in order to solve a problem of complexity of the CCCH. Mr Audestad strongly urged the meeting to reach a conclusion on the matter, saying that if no decision could be taken, the time targets of GSM could not be met.

Some delegates expressed worry that the DCCH method had not been fully studied and they therefore could not agree to take a decision in the matter at this meeting. It was also pointed out by some delegates that if OACSU and queing was dropped, the advantages gained through the DCCH compared with the CCCH solution would be less pronounced.

The FRG delegation explained that a study of the matter was in progress and was expected to give results before the end of October.

Decision: FRG declared its willingness to call a meeting of the Administrations engaged in this question towards the end of October. It was felt that the outcome of the study mentioned above would pave the way for a decision of the still undecided Administrations. If agreement could be reached at the meeting, Mr Audestad would be informed immediately. Thus the WP3 meeting, starting November 2, would not waste time discussing the matter. It was strongly emphasized by Mr Audestad that if such an agreement was not reached before November 2, the production of essential specifications would be delayed by several months. GSM agreed that the matter was extremely urgent. It was also agreed that the OACSU feature should be discussed at the meeting in late October.

Regarding the other questions in the covering note to Rec, 03.01, the following was noted:

ii) § 3.3 This point is now solved. The chairman of WP2 produced a text which was agreed by the meeting.

v) § 4.2 Call duration limitation was considered unnecessary. Decision: this feature is deleted.

vii) § 4.5 (Discontinuous reception): Details of DRX could be a function of the outcome of the DCCH/CCCH decision. On the point concerning use of DRX for certain types of MS only, GSM found that the advantage of DRX for hand-held MS could be considerable because of the savings in power consumption. If an MS so equipped is to gain the full advantage at all times, then all networks must be equipped with the feature. It was felt premature, however, to make the facility mandatory for all MS.

Decision: Sleep mode is mandatory for the network, optional for the MS, (pending further studies).

x) It was decided that sufficient information could be found in Draft Rec 02.11. Concering point 2.2. in Rec 03.01, it was agreed to delete the text on authentication at handover.

Rec 03.02 (Doc 91/87)

Concerning para 6.6, it was agreed that further refinement would take place in accordance with the output from BSEG.

Rec 03.03 (Doc 88/87)

It was reported that the question of renaming IMSI to mean International Mobile Subscriber Identity had not received support in CCITT SG II, nor in CEPT/NA 2. The opinion of GSM was that such a change would be of great value.

Decision: The new terminology will be used in GSM recommendations, to which a footnote will be added. That footnote will reflect the fact that "International Mobile Subscriber Identy" is the concept referred to by CCITT as IMSI and used for routing purposes. The meeting agreed to send a letter to NA2 (Doc 129/87 Rev 1) in order to try to introduce the change in other CEPT Recommendations. The Administrations were urged to brief their NA2 delegates in advance about the discussions of GSM on the matter.

Rec 03.07 (Doc 92/87)

The question was raised whether it was necessary to specify the functions in this Recommendation. It was explained by Mr Audestad that the document was intended to be of a descriptive nature and as such could be useful. The intention was not that all the functions described would have to be implemented as indicated in the document. Some delgates felt that it would be practical to indicate which parts were mandatory and which were only for descriptive purposes.

Decision: It was not felt necessary to take a decision at the meeting. The question how to indicate which parts are binding and which are not, was referred to GSM 16.

Rec 03.09 (Doc 90/87)

Concerning the covering note to this document, the following was noted.

It was felt that GSM Rec's should only describe GSM procedures, i e alternatives described in e g CCITT Rec's but not used by GSM, should not be described.

Decision: According to iii) at the bottom of the covering note.

It was also decided that one should not specifically point at MSC or BS in the description of the handover procedures, only refer to them as MSC/BS. There will be a note at the end of Section 1 referring to Rec Series 08, on the splitting of functions between MSC and BS.

The question was raised whether the names of some of the messages were correct or misleading. GSM was informed by Mr Audestad that the names had been established by SPS-SIG and it would not be possible to change them now. He aslo indicated that some of the message names had been changed by SPS-SIG and the same changes will be introduced in Rec 03.09.

Rec 03.12 (Doc 89/87)

For the covering note to this document, the following was noted:

i) There will be a reference to Rec 02.07 in Sec. 3.1.

iii) It was felt that the impact of making this feature mandatory in the MS would be negligible.

Decision: IMSI detach/attach shall be mandatory in the MS. It shall be optional in the network.

iv) Decision: According to the suggestion.

As for para 3.7, it was decided that clear references for the two cases "power off" and "card removed" should be incorporated.

Doc 125/87

A liaison statement from SPS-SIG was discussed. GSM agreed to accept the offer.

d Data services

Doc's 83/87, 84/87 and 114/87 were considered. Mr Hillebrand emphasised that no extra complexity has been added to the system by the present working assumptions of IDEG, which was confirmed by Mr Maloberti. From WP3 the remark was made that an MSC normally sees only bearer services, and that the MSC thus should be transparent to the teleservices carried. IDEG was asked to confirm that they share that philosophy. Mr Hillebrand answered that the issue had been adressed in IDEG, but it was not yet fully discussed.

Mr Hillebrand confirmed that IDEG will do its best to produce the specifications for the E2 services until the end of January 1988.

WP2 confirmed that there will be no difficulty to provide both the full and the half rate channel already from the start of the service, (for half rate channels every second channel is sent), and that there are no constraints on the repartition of half rate channels vs full rate channels.

GSM decided to follow a proposal of WP3 to make a separate subgroup of IDEG, reporting directely to GSM. MR Hillebrand was asked to continue to chair the group in spite of his present work load, until a new chariman can be found. Mr Hillebrand accepted this.

Some comments were made to items 7, 11 and 14 of the IDEG Working Assumptions, but no changes were decided.

e Speech coding

The reports of SCEG (Doc's 93/87 and 94/87) were considered. The discussion was concentrated to the questions below:

DTMF

Considering that

- a "signalling solution" to the problem need to be found in any case, and that

- whatever will be found on the performance of the speech codec with respect to its DTMF transmission capability, it will have no impact on the specification of the codec

GSM decided to stick to the Funchal decisions and concentrate on the "signalling solution". SCEG should thus not carry out any studies in this field, and WP3 should continue its on-going studies. The UK will present a document on the question.

Bit exact specification of the algorithm

SCEG will specify the algorithm in the form of a bit exact transformation from an input pattern to an output pattern. Some concern was expressed regarding type approval and manufacturing with this type of specification.

For type approval the problem might increase in the cases where D/A converters are integrated in the codec, in which case the digital output pattern is not available for a comparison. The meeting was told that the PN is looking at this problem trying to find solutions based on software test loops at several levels.

New subgroup of SCEG

GSM decided that a subgroup of SCEG should be created to carry out the studies associated with the DTX function outlined in Doc 93/87. This group must be resourced separately from SCEG and Administrations were invited to nominate members and inform the chairman of SCEG no later than October 30.

France, UK FRG and Sweden informed the meeting that they would support the work. Mr Natvig indicated that the first meeting will take place in Oslo, November 11-12.

A communication to COST 207 and TM3 on this issue (Doc 128/87) was prepared.

GSM decided that a final recommendation should be completed by 6/88.

FEC

GSM decided that the choise of a FEC for speech transmissions need only be made before January 7, 1988. The choise is not critical to WP2 until that date.

Discontinous Transmission (DTX)

Considering the strong support for DTX expressed at the Handheld Viability meeting and that benefits can be obtained from a spectrum efficiency point of view, GSM decided, as a Working Assumption, to make this function mandatory for the MS and optional for the BS.

The increasing intermodulation problems in the BS need to be dealt with.

Noise insertion

The problem was described and several different strategies for the noise/silence insertion were proposed. A key issue is how to provide an indication to the codec of the validity of the frames received and how to distinguish between the different cases of currupt frames. A distinction between those different cases on a frame by frame basis will not be provided, but an indication of a radio link break should be provided.

GSM decided that PN should up-date their previous report to SCEG on the way this could be provided and used, for a GSM decision at the next meeting.

f Security

Doc 98/87 was introduced by Mr Haug, who in particular emphasized the installation of the Algorithm Experts Group (AEG). On a request from Mr Audestad, Mr Haug confirmed that Rec 03.20 has not been amended since the earlier versions submitted to WP3.

The reasons for the problems of disclosure were explained. Several delegates claimed that it should be possible to chose an algorithm from the existing 5 candidates in a shorter period than 8 months. It was agreed that Rec 03.21 should be finalized by mid 1988, but every effort should be made to finalize it earlier. This would apply to both algorithms, but priority should be given to the cipher algorithm.

In connection with the discussion on security matters Doc's 112/87 and 113/87 were also considered and several references were made to the meeting on hand held MS viability, during which strong arguments for simplification had been tabled. The following was noted:

The stream cipher

The proposal of Doc's 112/87 and 113/87 on software implementation received substantial support, and several Administrations wanted to make it a requirement on the algorithm that such an implementation should be possible. However some concern was expressed regarding the speed and security of such implementations. GSM finally agreed that for the moment the possibility of software implementiation should be a selection criterion.

Although preference was expressed for solutions which enable implementation in the software of the control processor, it should nevertheless be up to manufacturers to chose the way of implementation if such solutions can be found.

It was stressed that SEG should follow the advise of the HH Viability studies looking for solutions which avoid power consuming I/O transfers.

Authentication

The proposal not to have the authentication module as a mandatory feature for all MS's received support from several Administrations. However, some Administrations were concerned about the problems of key loading and wished further studies on this matter. No decision was taken, and the meeting noted that no earlier decision to have a security module as a mandatory function has been taken in GSM either.

GSM closed the discussion on security matters by urging SEG to seriously consider the power and complexity constraints of the handheld MS.

g Equipment specifications

The GSM delegates were asked to consider Doc 85/87 on environmental requirements for data terminal equipment, used in a mobile environment and to comment on this at the next meeting of GSM.

The meeting noted that the PN will have some use of the document for the work on Rec's 11:10 and 11:20.

h Operation and Maintenance

No discussion took place on this item of the agenda.

j Man-machine Interface

The delegates were invited to send their comments to Doc 110/87 by telefax to the PN. Mr Audestad stated that from a WP3 point of view, the proposes of Doc 110/87 are very satisfactory.

k Charging matters

Doc's 95/87, 96/87 and 97/87 will be considered directly by WP1.

l Approval procedure

Doc's 103/87 and 104/87 were considered and substantial appreciation for the check lists of Doc 103/87 was expressed. It was proposed that the WP's should use these check lists for their internal reviews. The recommendation reviews addressed in the present contribution could thus be focused on the border areas between the WP's and the expert groups.

The meeting was in agreement that reviews with respect to cost and complexity was the responsibility of the WP's and GSM. Several speakers spoke in favour of arranging dedicated meetings or groups for this purpose. The competence of the industry should be utilized. The Administration of FRG will investigate the possibility to contribute in this area.

Some other delegations asked for a complexity review of the system elements, and it was agreed that Mr Mallinder, Mr Hillebrand and Mr Audestad will formulate a proposal for an acitivity in this area (Doc 131/87).

m Other questions presented under agenda item 6

Permanent Nucleus Report

The status report of the PN (Doc 106/87) was considered and the following was noted:

Section 1.1.3: Part of Rec 11.10 is now in the typing process and will be sent to WP2 and SCEG prior to submission to GSM. The PN advised the meeting on the direction of the 11.10 work. The preliminary document is focused on methods of measurements.

The need to align the current schedules of WP2 and 11.10 meetings was discussed. Improved alignment will be built into a schedule of new meetings.

Contact with EUTELSAT: The contact with EUTELSAT has been initiated by EUTELSAT following a decision of CCTS. The meeting, which should be seen as a preparatory meeting before a first meeting with GSM, has been devoted to an exchange of basic information about the GSM project, very much alike the meeting between GSM and INMARSAT. It was noted that INMARSAT and EUTELSAT are working along different lines.

"Meeting pruning": The objective of the PN to reduce the participation and the number of meetings was appreciated.

COST 207

The report of the last meeting of the Working Group on Propagation (Doc 119/87) was considered. GSM noted that the propagation measurements in mountaineous areas have been taken into account (section 6) and that the frequency selective fading simulator will be available in early 1988 (section 3).

Transmission aspects (TM3)

Mr Wright reported of the work of TM3 on transmission aspects of the GSM-system. The main concern of TM3 regards noise, echo, delay, and hands-free operation. TM3 wishes to establish a liaison with WP3 for discussing call forwarding cases and with SCEG for dealing with half rate coding and DTX. The meeting noted that the transmission problem is not restricted to the radio path only, but comprises also the transmission in the fixed network and the acoustical paths.

GSM discussed when and by which body the recommendations on transmission should be approved, concluding that a first recommendation is needed by January 1988 and a final version by April 1988. Mr Wright said that this time target will be difficult to meet, but he promised to stress the urgency of the matter. The recommendation should be in the form of one or more GSM recommendations in the 03 series containing only a reference to recommendation(s) approved by WG TM (containing the substance). A secondary responsibility for those recommendations was allocated to SCEG. The number of recommendations will be decided by TM3.

Hand-held Viability (HHV)

Doc's 102/87, 112/87 and 113/87 were discussed. GSM noted that the three documents were very much in line, all strongly advocating complexity pruning.

The remark was made that the HHV-meeting gathered VLSI manufacturers rather than the communications industry which will be involved in the implementation of the GSM system. An "implementation meeting" will be needed in the future.

The definition of properties of a handheld MS in Doc 112/87 was noted and it was suggested that a text of that type should be included in the definition of objectives (Doc 73/85) but not in the recommendations.

The interpretation of the output power figure and the figure itself caused some discussion. Both higher and lower values were proposed. However, several delegates felt concern regarding both the service aspects and the network consequences of a large variety of MS's with different coverage properties. No decision was made.

GSM went trough the proposals of Doc 112/87 concluding the following:

i) Time dispersion

It was proposed to apply relaxed requirements on this during the first years of operation when the system will only provide coverage in the cities anyhow in order to get the system off ground. Some Administrations were in favour of this approach, but strong reservations were noted from Switzerland, FRG, Austria and Norway and no decision could be taken. It was stated that some precise proposal showing the reduction in complexity should be forwarded to WP2, who would then produce a report indicating what the effects of a reduced equalization would be, in terms of reduced complexity and reduced service coverage. WP2 pointed out that they might not be able to produce complete results of this study for the next meeting of GSM.

Note: At an appropriate time, GSM needs to obtain information and estimated statistics regarding additional system access attempts which may result on those occasions when a time dispersion of 16 us, a stated as a minimum requirement in the Working Assumptions, is not adequately compensated for.

II) Sleep-mode

Mr Maloberti emphasised that there is no simple relationship between the duty cycle and the number of windows, and that consequently the requirements should be expressed in duty cycle and delay.

GSM decided to accept 2% duty cycle as a Working Assumption. WP3 was asked to provide figures on the maximum tolerable delay time for WP2.

iii) ISDN signalling

No particular decision was made. Mr Audestad claimed that the statement of the document was based on a lack of understanding of the WP3 Rec's, and that the terminals for simple applications, such as hand held telephones, will only require simple signalling. It was stated that the choise of solution to the DCCH/CCCH problem will have an impact on this.

The security related matters are reported above in the SEG section.

8 SYSTEM VERIFICATION

Doc 107/87 from the PN was considered. The meeting noted that the test program described in Annex 2 should be regarded as a menu of desirable test activities. So far, no Administration has commited itself to follow it.

The Administrations were asked to indicate what their plans were regarding testing. FRG declared that they were not able to answer the question at the present stage due to some policy issues which need to be solved first. France declared that they were planning to take a bigger first step in the testing, involving both a MSC simulator, BS's and MS's already from the start.

The meeting agreed that apart from Section 3, the document reflects the view of GSM.

9 IPR QUESTIONS

Doc 122/87 was considered and received strong support. From the discussion the following was noted:

- The members of the patent club shall be bound by their earlier given comitments on royalty-free use of patented elements of the GSM system.

- Establishing a patent club does not mean that a new legal body needs to be created.

- Item e) on page 3 of the document might be in conflict with the free trade agreements. Further investigations are needed.

- The distinction between "Foreground IPR's" and "Backgruond IPR's" should not be used. The only distinction shall be made between "Essential IPR's" and "Non-essential IPR's".

- Discussing the ownership of IPR's, GSM agreed that IPR's generated in the course of the project should be owned by the industry/administration which is the originator of that IPR, (ie the patent club should not buy the IPR as is the case with for instance INTELSAT).

GSM agreed to revise Doc 122/87 in the light of the discussion. Further comments to the document should be sent to Mr Beddoes or Mr Temple before November 1. The revised version shall be sent to all Administrations and to the group of legal experts within ECTEL.

10 ACTION PLAN, PREPARATIONS FOR THE OPTION PRUNING

Doc 109/87, containing the revised Action Plan was considered. GSM noted in particular the indication of recommendations needed for tendering.

The schedule of meetings, Doc 108/87, was considered. In order to simplify the planning of national coordination meetings, GSM agreed to avoid organising meetings on mondays of weeks with even week numbers. (Since there are different standards for week numbering, the standard defining 4/1 1988 - 10/1 1988 as an odd week number shall apply for this rule.)

Mr Mallinder pointed out that documents for distribution via the PN should be available to the PN at least 3 weeks in advance of the GSM meetings.

Delegates were asked to study Doc 101/87. This document was not discussed during the meeting.

11 SUMMARY OF DECISIONS

A summary covering most of the decisions made during the meeting was presented and corrected.

12 COOPERATION WITH INMARSAT

An evening meeting with INMARSAT was orgainised, during which GSM and INMARSAT got the oppertunity to exchange views on the development of land mobile communications in Europe, and to present the GSM project and the INMARSAT Standard C system respectively. As a result of the discussion, GSM decided to establish a liaison group with INMARSAT. It was agreed that because of the present work load on GSM, such a liaison group could not start working until the spring of 1988. GSM would prepare a proposal for Terms of Reference for the group and send it to INMARSAT for comments and possible modification. After the meeting with INMARSAT, GSM prepared a first draft for such a proposal, Doc 126/87 Rev 1.

13 FUTURE MEETINGS

The following meeting schedule was agreed:

Meeting no 16:	14/12 - 18/12 1987, the Hague
Meeting no 17:	1/2 - 5/2 1988, Italy
Meeting no 18:	25/4 - 29/4 1988

14 ANY OTHER BUSINESS

GSM seminar

The meeting discussed whether it was suitable to arrange a seminar on GSM during the early spring of 1988 in order to present the system for the industry. Condsidering that it would not be possible to produce a high quality documentation of the system in time, and that a certain background of verification is desirable before a seminar, GSM decided to postpone the seminar till a later date. However, there will be other opportunities to present the system, eg during EUROCON 88 and DMR III. For EUROCON 88 it was noted that the closing date for abstracts is December 15. The delegations of the nordic countries were asked to consider whether it would be possible to reserve time during DMR III for presentations of GSM.

Report to ECTEL of the Paris trials

The Chairman reported that one of the industries participating in the system evaluation trials in Paris earlier this year, had raised objections against publishing the results of the evaluations within the group of participating candidate system suppliers. For this reason GSM and ECTEL agreed that it was not possible to comply with the request of the other industries, and decided to close the discussion on the matter.

French versions of the GSM recommendations

The earlier contribution from France, Doc 23/87, wich has never been discussed during the previous meetings, was introduced by Mr Dupuis who told GSM that CNET is prepared to take care of the production of GSM Recommendations in French. A liaison with the PN for this task is howeverr requested. GSM decided to put a reference to this activity in the GSM Action Plan.

15 CLOSING OF THE MEETING

The Chairman closed the meeting by thanking the Administration of UK for their kind hospitality and nice meeting arrangements. He also reminded the delegates of the importance of submitting their contributions in due time before the meetings, now that GSM needs to take decisions on a great number of questions.

Annex 1

CEPT-CCH-GSM
Meeting no 15
London, 1987.10.12 - 16

LIST OF PARTICIPANTS

Chairman:	T. Haug
Secretary:	T. Beijer
Austria:	E. Tallowitz
	F. Hoffenreich (SIEMENS)
Belgium:	L. Taghon
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	E. Mortensen
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Finland:	M. Pasanen
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	C. Geus
Norway:	P. Bliksrud
	B. Löken
	J. Natvig
	J. Audestad
Portugal:	O. Reis Luis

Spain:	C. Lluch M. Garcia de la Oliva L. Rodriguez Valmayor
Sweden:	Ö. Mäkitalo G. Fremin J. Uddenfeldt (ERA)
Switzerland:	R. Klingler
United Kingdom:	S. Temple D. M. Barnes E. W. Beddoes R. Potter R. W. Tompkins A. Cox M. Appleby D. Balston A. Haden S. Hearnden D. Cheeseman T. Wright
Permanent Nucleus	B. Mallinder B. Haarpainter R. Hagedoorn
ECTEL-TMS	K. Lehnich (SEL) A. Hudson (MOTOROLA)

CEPT-CCH-GSM
Meeting no 15
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AGENDA

1 Opening of the meeting

2 Approval of the agenda

3 Listing of documents

4 Report from GSM meeting no 14

5 Information on the Memorandum of Understanding

6 Reports from subgroups and other bodies

- a WP1
- b WP2
- c WP3
- d IDEG
- e COST 207/TR3
- f COST 207
- g SEG
- h PN
- j PGT
- k TM2
- l TM3
- m Possible other documents

7 Discussion and decisions

- a Services and Facilities
- b Access technique, modulation and channel coding
- c Signalling and protocols
- d Data services
- e Speech coding
- f Security
- g Equipment specifications
- h Operation and Maintenance
- j Man-machine Interface
- k Charging matters
- l Approval procedures
- m Other questions presented under agenda item 6

8 System verification

9 IPR Questions

10 Action Plan, preparations for the option pruning

11 Summary of decisions

12 Cooperation with INMARSAT

13 Future meetings

14 Any other business

15 Closing of the meeting

Annex 3

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EXTRACT FROM GSM DOCUMENT LIST

Doc No	Title	Source
83/87	Working Assumptions on the implementation of data and telematic services	IDEG
84/87	Action Plan for IDEG	IDEG
85/87	Environmental conditions and environmental tests for telecommunications equipment	TM2
86/87	Transmission planning aspects of DMR	TM3
87/87	Rec 03.01 Draft 2.0.0	GSM WP3
88/87	Rec 03.03 Draft 2.0.0	GSM WP3
89/87	Rec 03.12 Draft 2.0.0	GSM WP3
90/87	Rec 03.09 Draft 2.0.0	GSM WP3
91/87	Rec 03.02 Draft 2.0.0	GSM WP3
92/87	Rec 03.07 Draft 2.0.0	GSM WP3
93/87	Extra resources needed for the implementation of discontiuous transmission (DTX) in the GSM system	SCEG
94/87	Status report of SCEG (September 1987)	SCEG
95/87	Draft Recommendation PGT 19	CEPT PGT
96/87	Draft Recommendation PGT 20	CEPT PGT
97/87	Draft Recommendation PGT 22	CEPT PGT
98/87	Status report of Joint Expert Group on Security (London)	SEG

Doc No	Title	Source
99/87	Need for centralized coordination	GSM WP1
100/87	Option Management: Identification of Options	GSM PN
101/87	Advice to GSM concerning Action to be taken relative to Third Party IPR's	GSM PN
102/87	Interim report to GSM on handheld viability	GSM PN
103/87	Dimensions of Recommendation Review	GSM PN
104/87	Approval Procedure for GSM Documents	GSM PN
105/87	Development and Status of the GSM 11 Series Recommendations	GSM PN
106/87	PN Status Report	GSM PN
107/87	System Verification Program	GSM PN
108/87	GSM Program Information: Schedule of Meetings	GSM PN
109/87	Program Management Review	GSM PN
110/87	Man Mashine Interface	GSM PN
111/87	Rec 04.03 Draft 1.0.0	GSM WP3
112/87	Requirements for a commercially viable handportable	Sweden
113/87	Cost and power impact of a separate authentication module on handheld radio viability for GSM	Sweden
114/87	IDEG Status Report	GSM PN
115/87	WP2 Status Report	GSM PN
116/87	WP1 Status Report	GSM PN
117/87	Report of GSM meeting no 14 (Brussels)	GSM
118/87	Data transmission at 9600 kbit/s	Italy
119/87	14th report of the Working Group on Propagation	COST 207
120/87	Status report of WP3	GSM WP3
121/87	Memorandum of Understanding	MOU
122/87	Intellectual Property Issues in GSM	UK
123/87	GSM Rec 03.06, Draft 0.3.0	Finland

Doc No	Title	Source
124/87	Structure of Control Channels, a comparison between 3 alternatives	France
125/87	Liaison statement from SWG SPS-SIG to GSM	SPS-SIG
126/87 Rev 1	Terms of reference for a GSM liaison group with INMARSAT	GSM
127/87	System and Review group in FRG	FRG
128/87	Letter to COST 207 and TM3	GSM
129/87 Rev 1	Letter to NA2 on terminology	GSM
130/87	Creation of a SCEG sub-group on discontiuous transmission	SCEG Chairman
131/87	(document on Complexity Review to be drafted)	
132/87	Laiason statement to MOU on the GSM decision process	GSM Chairman