

**MINUTES OF THE FIFTH MEETING OF THE
PUBLIC SAFETY NATIONAL COORDINATION COMMITTEE**

Date/Time: Friday, January 14, 2000; Meeting commenced at 1:40 p.m.

Address: Federal Communications Commission
Commission Meeting Room
445 – 12th Street, S.W.
Washington, D.C. 20554

Attendees: See attached list

Kathleen Wallman, National Coordination Committee (“NCC”) Chair, convened the fifth meeting of the NCC. She stated that the NCC had very productive subcommittee meetings the previous day and a half. She mentioned that one more session for Subcommittee meetings and the NCC General Membership meeting would be held in San Francisco on January 27, and 28, 2000, respectively, and that at the end of February, the NCC owes a report to the FCC. Ms. Wallman then called for the report from the NCC’s Interoperability Subcommittee.

Interoperability Subcommittee Report. John Powell, Chair, said the Subcommittee formed a new working group, Working Group 6, chaired by Dave Buchanan, at the New York Subcommittee meeting to look at operational requirements for interoperability data for narrowband and wideband data. He said interested participants in this working group are encouraged to contact Mr. Buchanan. Mr Powell said much Subcommittee work between the New York meeting and yesterday’s meeting were stymied because of attention focused on Y2K matters by many of the attendees present. He said that Working Group 3, chaired by Carlton Wells, raised an issue for presentation to the NCC Steering Committee which pertained to adding a footnote to one of the recommendations made two of the designated interoperable channels labeled for mobile repeater applications. He said that the recommendations would more clearly define what was meant by the FCC station class definitions, i.e., FB2T (for temporary locations) and MO3 (for extender operations), both being permitted on the two channel pairs would be added by footnote would be given to Steering Committee. He said that Don Pfohl, who chairs Working Group 4, has put together list of the Regional Plan Convenors, which will be available and will play a key role for the Subcommittee as well as the Implementation Subcommittee. Most of discussion was in Working Group 6 regarding data standards for narrowband and wideband, seen as “two parts to the puzzle.” Mr. Powell said he submitted a proposal using the already adopted ANSI 102 Series 9600 Data Standard coupled with the AX.25 open architect standard. He said he hoped to have equipment demonstrated at the San Francisco meeting. Regarding the wideband data issue, Mr. Buchanan’s Working Group is working with the Project 34 Statement of Requirements, which has been made available and is posted on APCO’s website (web address included in documents submitted to the Steering Committee yesterday). Mr. Powell said his Subcommittee was adding into the document the requirements for the spectrum available in the 700 MHz band. He said there also was discussion on data users roaming into and out of other users’ systems. He then mentioned his discussion with Allan Caldwell of the International Association of Fire Chiefs regarding the need to adopt standard operational procedures for use on the interoperable channels and the recommendation to adopt the Incident Command System (ICS), which has been mandated by a number of states. Finally, Mr. Powell initiated a brief discussion concerning steering committee member Marilyn Ward’s request that the Subcommittee recommend Commission adoption of a rule that would require applicants to engage in pre-coordination of their applications using the NIJ pre-coordination database.

Ms. Wallman informed Mr. Powell of an issue raised in discussions with the Steering Committee regarding the Committee's concern about what occurs operationally on channels if trunking is permitted on a secondary basis. Specifically, the Steering Committee is concerned about priority of access when an emergency arises and a channel must be released from a trunked system and used in the conventional mode for interoperability purposes. Ms. Wallman noted the suggestion that the priority issue could be resolved if the Regional Planning Committees (RPCs) developed standard operating procedures whereby channels could be released from trunking immediately when the need arises. Ms. Wallman suggested that Mr. Powell's Subcommittee could prepare model language for use by the RPCs in resolving priority issues. Mr. Powell responded by saying that assignment of priorities is an issue for all interoperability channels, not only those that might be used for secondary trunking. Ms. Wallman said she would like to have the priority matter resolved at the San Francisco meeting.

A wide-ranging, general, and lengthy discussion then ensued concerning the priority issue. The following individuals spoke, and, collectively, made various comments, posed various questions, and provided information based on their experiences, understandings, etc. These individuals were David Buchanan, Steven Proctor, Harlin McEwen, Glen Nash, Kathleen Wallman, Ali Shanami, Ron Haraseth, and John Powell. Mr. Powell said that Carlton Wells, whose Working Group handles the detailed operational requirements would be provided information regarding implementation and management of a priority system.

Schedule for Future Meetings. Ms. Wallman addressed possible dates for the next group of NCC and Subcommittee meetings. There was general consensus that the Thursday-Friday sessions (*i.e.*, the Subcommittees meetings being held all day Thursday and on Friday mornings and the NCC general membership meetings being held on Friday afternoons) seemed to be working well and, thus, would be maintained. There was, though, no apparent consensus for specific dates for the next group of meetings.

Remarks of Thomas Sugrue. Ms. Wallman said that the NCC was honored to have at the meeting Thomas Sugrue, Bureau Chief, Wireless Telecommunications Bureau, FCC. Ms. Wallman provided Mr. Sugrue's biographical information. Mr. Sugrue then addressed the attendees. He said he has been keeping tabs on the NCC's work, has observed that the NCC has made substantial progress, and, noting that the NCC is comprised of volunteers, he thanked, on behalf of the Commission, the NCC for its efforts to date. Mr. Sugrue stated that the FCC looked forward to receiving the NCC's recommendation on the issue of trunking and technical standards in February, which, he noted, would be critical to the Commission's decision-making process. He said he thought the Commission would find most valuable standards that represent the latest in today's technology and which have a clear, timely, and realistic migration path to more spectrum-efficient technology in the future. He observed that there was some sentiment within the NCC that the February recommendations for technical standards be characterized as final standards. Mr. Sugrue suggested that this would signal an "as far as we go" view, *i.e.*, that the NCC would be saying the task of considering technical standards is over and would come to a full stop as soon as the initial recommendations are made. Mr. Sugrue thought this would be unfortunate and unnecessary.

Mr. Sugrue said that, on the other hand, the Wireless Bureau would be concerned that public safety licensees would be reluctant to buy interim standard radios that could be made obsolete if standards changed. Moreover, he said, the Bureau would have no interest in recommending to the Commission final standards that would quickly render obsolete any equipment built to an interim standard. He thus hoped that regardless of how the standard is characterized, it both

permits near-term deployment of 700 MHz systems and enables the long-term realization of the spectrum efficiency benefits of developments in technology. Thus, he said, striking that balance and explaining how the NCC's recommendations strike that balance would be very useful to the FCC. Mr. Sugrue said that on the general category channels, the FCC is requiring trunking on all systems with six or more channels, and he rhetorically asked if the FCC also should require trunking on the interoperability channels. He said he understood there might be some difference of opinion within the NCC on the subject and noted that some NCC members believe operational considerations make trunking a bad choice for such channels. He said other NCC members think trunking should be permitted on the interoperability channels as they could be made available on a secondary basis to become part of larger, trunked systems for day-to-day communications. Mr. Sugrue said that if this latter type of trunking is done, provisions would be needed to immediately return the trunked channels to conventional use for interoperability in the event of an emergency. He similarly said that as with the technical standards, the Commission has the same goal, *i.e.*, receiving NCC recommendations offering spectrum efficiency consistent with rapid deployment of the technology, affordable cost, and conformity to public safety's operational requirements.

Mr. Sugrue observed that the NCC has made considerable progress on recommendations for narrowband voice channels but has not yet addressed the matter of data transmission on the narrowband channels. Thus, he said the Commission is looking to the NCC to recommend narrowband technical standards that include data transmission as well as voice and that he hoped those standards could be provided as part of the NCC's February recommendations. He said: that he also understood that the NCC subcommittees have encountered difficulty defining a wideband data standard; that Ms. Wallman asked TIA to develop a wideband data standard; that while Ms. Wallman's request is being considered by the TIA standards committee, it might be possible for the NCC to at least look at minimum wideband data standards that could be put in place to meet currently known user requirements; and that if, possible, the NCC could address this subject in its February recommendations. Mr. Sugrue re-emphasized that, based on the importance of the NCC's work with the largest allocation of spectrum ever made to public safety, it is crucial for the NCC to "get it right" the first time. He said the NCC not only must be concerned about technical issues but, also, the public safety community would be best served if the NCC recommendations result in vigorous competition among manufacturers. He again thanked the NCC for its hard work and especially thanked both Kathy Wallman for her leadership in chairing the NCC and the wise guidance provided by the NCC Steering Committee.

Schedule for Future Meetings (continued). At the conclusion of Mr. Sugrue's remarks, Ms. Wallman returned to the matter of scheduling future NCC and Subcommittee meetings. Based on apparent consensus of attendees, she set April 6 and 7, 2000, and June 1 and 2, 2000, for the next groups of meetings, and set Washington, D.C. (*i.e.*, FCC Headquarters) as the location for these meetings. She also said it was reasonably convenient last year for meetings in August and, thus, she suggested that meetings for the rest of the summer might be held in conjunction with other meetings or seminars that NCC members might be attending elsewhere.

Ms. Wallman called for a brief recess (which was taken from 2:45 p.m. to 3:05 p.m.) Upon reconvening the meeting, Ms. Wallman requested the report from the Technology Subcommittee.

Technology Subcommittee Report. Glen Nash, Chair, said that the previous day's Subcommittee meeting was long, with a lot of information exchanged and discussed. He said Tim Goodall of Motorola gave a presentation on wideband data applications and what the future of wideband data transmission looked like. Mr. Nash summarized Mr. Goodall's conclusions presentation by mentioning, among other things: that there is a trend for using Internet Protocol (IP) standards for wideband data. He also noted that the industry expected tremendous growth in

data applications, far exceeding those seen in voice. He noted that with data transmission, there are tradeoffs between the amount of data being transmitted versus the amount of time for transmission; that the future indicates a packet- type data network, and that in sending packet information, one must consider, in particular, the “ACK/NAK” (*i.e.*, acknowledged/not acknowledged) protocol.

Mr. Nash said that both prior to, and during Mr. Goodall’s presentation, various items came to mind. He said that, for example, the Subcommittee has viewed a data rate of 384 kilobits as being a consensus target. However, he questioned whether there should be one, or several, data rate standards; and, if the latter, how many standards are needed. He also raised the issue of whether a 150 kHz channel was adequate to meet data transmission requirements. He said that such questions have been forwarded to the Wideband Applications Working Group headed by Dave Buchanan, and hopefully, answers would be forthcoming. Mr. Nash said that the Narrowband Working Group, which submitted a report at the last meeting recommending the Project 25 Phase 1 and ANSI 102 Series, has not done additional work. He noted that questions had been raised concerning an appropriate encryption standard, but that the encryption working group had not yet submitted a recommendation. However, there are various ongoing discussions taking place with various federal governmental entities. He said there was some discussion in the Subcommittee regarding narrowband data standards and the Subcommittee still has a question as to what the target is for such standards.

Mr. Nash said that there was a report from Ron Haraseth, Chair of the Spectrum Working Group, wherein Mr. Haraseth made three recommendations, one of which the Subcommittee acted on and is forwarding to the NCC Steering Committee for its consideration, *i.e.*, that the NCC’s Technology Subcommittee recommends that the FCC acknowledge the industry effort to develop RF system performance standards by TIA and EIA; specifically, the TSB 88 document entitled, “Wireless Communication Systems Performance and Noise and Interference Limited Situations Recommended Methods for Technology Independent Modeling Simulation and Verification”. Mr. Nash said that he had received a report from Don Pfohl, Chair of the Receiver Standards Working Group. Mr. Nash said since the last meeting, TIA had not met and, thus, no progress had been made regarding establishing receiver standards. Hopefully, he said, after TIA meets next week in Arizona, there would be some action and, thus, something to report in San Francisco. He said that there had been discussions of whether different receiver standards should be developed for receivers used in rural and urban settings. If so, the cost of the radios used in a rural setting could be lower.

Michael Wilhelm, Designated Federal Officer (DFO), requested that Mr. Nash address the Subcommittee’s position relative to Mr. Sugrue’s estimate of the Wireless Bureau’s expectations for the February recommendations. Specifically, Mr. Wilhelm asked about the current status of the Subcommittee, what the Subcommittee planned for the upcoming San Francisco meeting, and how the NCC would get information into a final document for submission to the FCC? Mr. Nash responded that he did not think there could be a data standard recommendation by February either for narrowband or wideband data. He said the wideband, in particular, and the narrowband modes, were not well defined and that, to date, no one has come forward with the specific technology that would provide a 384 kilobit data rate within a 150 kHz bandwidth. Moreover, there does not appear to be an existing standard or document that could be pulled off-the-shelf to forward as a recommendation. Mr. Wilhelm noted that the Commission’s required throughput rate for the 700 MHz channels was 4.8 kilobits per 6.25 kHz, and he asked Mr. Nash if that were the throughput goal the Subcommittee was working toward. Mr. Nash replied that such a data rate described a spectral efficiency rate but not the data throughput rate.

Based on the Wilhelm/Nash exchange, there was a wide-ranging, detailed, technical discussion regarding data standards. The following individuals spoke on the matter and, collectively, made various comments, posed questions, provided hypotheticals and information based on their experiences and understandings, sought and provided clarifications, etc., in addressing various aspects of data standards as well as ANSI standards and the open process of arriving at recommendations: Robert Schlieman, Harlin McEwen, Dave Buchanan, Larry Miller (of AASHTO), Michael Wilhelm, Art McDole (of APCO), and Glen Nash. In concluding this portion of the discussion, Kathleen Wallman suggested to Bob Schlieman that the matter be discussed off line and made the subject of the subcommittee's meeting in San Francisco. Mr. Nash agreed. Ms. Wallman then requested the report from the Implementation Subcommittee.

Implementation Subcommittee Report. Tom Tolman, Vice Chair, said he was giving the report as Ted Dempsey had a family emergency, and Richard DeMello, Second Vice Chair, was unavailable. He thanked Emil Vogel for assembling the report. He said that, during the Subcommittee's meeting, David Eierman, Chair of Working Group 2, reported on the status of DTV (Digital Television) transition, which could be summarized by saying that if commercial services move into the 700 MHz band, they will help move TV out of the band. Mr. Tolman said that Ali Shanami, Chair of Working Group 4, reported on the status of technology policy. Mr. Tolman said much of the Implementation Subcommittee's work depends on work of the other subcommittees. He said Fred Griffin, Chair of Working Group 3, Policies and Recommendations, reported that material on regional planning had been submitted on a listserver for comments, and that only a few comments had been received. Mr. Tolman said that Marilyn Ward, on behalf of NPSTC, inquired about the status of the NPSTC proposal contained in a letter submitted to the Steering Committee this past Fall regarding a database. Mr. Tolman said the Subcommittee was seeking a response regarding the pre-coordination database and is prepared to proceed with development. In this regard, he said the Subcommittee recommends that the NCC support the database proposal for use by the RPCs. Mr. Tolman said that, for the database to be effective, the FCC should mandate that each of the 55 regional planning committees provide input. He also said a letter concerning the database would be submitted today to the Steering Committee. He said there was discussion on funding mechanisms, under the purview of Working Group 6, and that Tim Loewenstein would be setting up a listserve for this Working Group. Mr. Tolman said there was discussion to the effect that, for this Working Group to be effective, there had to be a clearly-defined focus on funding. He said key points in this regard included voluntary assistance to, and developing costs (including costs for meetings) for, RPCs; implementing systems at least for interoperability channels and possibly other regional interoperability channels developed by RPCs within the general-use blocks, with this list being prioritized. He said there also was discussion on resources for funding, including: (1) an interagency working group (*i.e.*, a combined effort of Departments of Justice, Commerce, and Treasury) which put together an "effort document" for funding public safety. Mr. Tolman said although this effort was unsuccessful, it was suggested the document could be revamped and the matter revisited; and (2) that TIAP (via the National Telecommunications and Information Agency) is known now as TOP (*i.e.*, Telecommunications Opportunities Project). However, the funding from this organization would not apply to the public safety arena. He said it was suggested that a statement of work be developed and presented at the San Francisco meeting.

Fred Griffin, Chair of the Implementation Subcommittee's Policy Working Group 6, said that due to microphone problems at the Subcommittee meeting, he was not heard at that time saying that vendors could be queried about reducing the cost of trunked equipment. Ms. Wallman said that she and Louise Renne had discussed at the recess, the possibility of having part of the San Francisco meeting as an opportunity to look at the synergies between commercial applications and commercial vendors and public safety applications. She said that she, Ms. Wilhelm, Ms.

Renne, and Jayne Lee (Ms. Renne's assistant) would converse to see about developing a forum for discussions along those lines.

Ms. Wallman said that, knowing the Subcommittee's position on acknowledging the NIJ pre-coordination database resolution would be discussed at today's meeting, she briefed the NCC Steering Committee on the issue, and it was her sense that the Steering Committee might be prepared to support the resolution. She then queried the Steering Committee, which concurred by consensus to acknowledge the merits of the database.

Public Discussion (Audience Participation).

Kathleen Wallman asked Michael Wilhelm about: (1) the status of the IPR (*i.e.*, intellectual property rights) letters that are to be given to the NCC and (2) his overview concerning the "end game" leading up to February and past the San Francisco meeting. Mr. Wilhelm responded, saying he anticipated consensus would be reached in San Francisco on adoption of the reports of the Subcommittees. He said there might be need for minor modifications to the reports but if there could be agreement reached on the substantive issues involved, then a covering document could be prepared summarizing the recommendations in non-technical terms. Mr. Wilhelm said that document would be reviewed by the Steering Committee, which could make edits prior to sending it to the Commission. As to the status of the IPR, he said three companies must supply statements that they either will make their IPR available at no cost or will license it on fair, reasonable, and non-discriminatory terms. In this regard, he said the NCC has received two letters which, after minor modification, were satisfactory; and a third letter which requires modification. Concerning the third letter, Mr. Wilhelm said he was going to discuss needed modifications with Ernest Hofmeister. He stated that he did not regard the modifications as contentious because they merely reflected the requirements set out by the FCC in its R&O (*i.e.*, the Public Safety Report and Order, FCC 98-191, adopted August, 1998; released September 1998). Mr. Wilhelm expected the matter to be concluded by the San Francisco meeting.

Harlin McEwen inquired whether NCC General Membership meeting time could be changed consistent with the legal requirements that bind the NCC. Michael Wilhelm noted that minor modifications had been made in the meeting times of previous meetings and he foresaw no problem in doing so for the San Francisco. He said that the important thing is for parties to have notice of what is going to be discussed and the opportunity to participate. Kathleen Wallman said if the Subcommittees were willing to start earlier, the General Membership meeting could be started earlier. Glen Nash suggested that the public notice of the subcommittee meetings specify only the starting time of the first subcommittee meeting and state that the meetings of the subcommittees will be consecutive. That way, if a subcommittee meeting concludes early, the next subcommittee meeting can commence with concomitant savings of time. Carlton Wells suggested that the General Membership meetings should be published with an earlier starting time. Thus, if the subcommittee meetings end early, the General Membership meeting may start early. John Powell commented that westbound flights are difficult but eastbound flights are easy to get.

Larry Miller of AASHTO wanted to clarify what he said at the New York meeting. He read a letter summarizing AASHTO's telecommunications position, which stated, among other things, that if the objective is interoperability, the emphasis should not be limited to mandating a digital standard in the 746 MHz -806 MHz band; and that the objective should include the development of gateways using industry standards and communications switches that can interconnect not only the technologies implemented in this band but also other technologies used in other frequency bands.

Steve Proctor wanted to announce that PSWN has completed a spectrum analysis report and that this report is available in the back of the room.

There being no further discussion or comments, Ms. Wallman thanked the attendees and said that the NCC would see everyone in San Francisco.

(Whereupon the meeting was adjourned at 4:00 p.m., Friday, January 14, 2000.)

Prepared by: Bert Weintraub
Attorney Advisor
Public Safety & Private Wireless Division
Federal Communications Commission

Certified as to accuracy:

Kathleen Wallman

Date: _____

NCC ATTENDANCE ROSTER FOR January 14, 2000

<i>Last Name</i>	<i>First Name</i>	<i>Meeting Date</i>
Aiken	Douglas	January 14, 2000
Alexander	Fiona	January 14, 2000
Arcuri	Dominick	January 14, 2000
Ashley	Don	January 14, 2000
Beeferman	Steven	January 14, 2000
Blair	Sgt. Bruce	January 14, 2000
Breneiser	Craig	January 14, 2000
Buchanan	David	January 14, 2000
Coltri	Norman	January 14, 2000
Davis	Renae	January 14, 2000
Descoteaux	Celeste	January 14, 2000
Drocella	Ed	January 14, 2000
Eierman	David	January 14, 2000
Gillory	Ronald	January 14, 2000
Goodall	Tim	January 14, 2000
Griffin	Fred	January 14, 2000
Gurss	Robert	January 14, 2000
Haraseth	Ron	January 14, 2000
Hoffman	Charles	January 14, 2000

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<i>Last Name</i>	<i>First Name</i>	<i>Meeting Date</i>
Hofmeister Dr.	Ernest	January 14, 2000
Ittner	Al	January 14, 2000
Kain, PE	Carl	January 14, 2000
Kelley	Edwin	January 14, 2000
Lee	Jayne	January 14, 2000
Leland	Wayne	January 14, 2000
Loewenstein	Timothy	January 14, 2000
Maples, Sr.	Dave	January 14, 2000
Marshall	Ross	January 14, 2000
May	Paul	January 14, 2000
Mayworm	Ronald	January 14, 2000
McDole	Art	January 14, 2000
McEwen	Harlin	January 14, 2000
Miller	Larry	January 14, 2000
Mueller	Steven	January 14, 2000
Murphy	Rick	January 14, 2000
Nash	Glen	January 14, 2000
Nickelsen	Scott	January 14, 2000
O'Hara	Ellen	January 14, 2000

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<i>Last Name</i>	<i>First Name</i>	<i>Meeting Date</i>
Orsulak	Rich	January 14, 2000
Overby	Stu	January 14, 2000
Pfohl	Don	January 14, 2000
Pickeral, J.D.	David	January 14, 2000
Poltronieri	Jeanine	January 14, 2000
Powell	John	January 14, 2000
Proctor	Steven	January 14, 2000
Renne	Louise	January 14, 2000
Rinehart	Bette	January 14, 2000
Schlieman	Robert	January 14, 2000
Shahnam	Alireza (Ali)	January 14, 2000
Sheldrew	Richard	January 14, 2000
Smith	McRae	January 14, 2000
Speidel Esq.	Robert	January 14, 2000
Speights	Don	January 14, 2000
Tolman	Tom	January 14, 2000
Vogel	Emil	January 14, 2000
Walchak	David	January 14, 2000
Ward	Marilyn	January 14, 2000

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<i>Last Name</i>	<i>First Name</i>	<i>Meeting Date</i>
Wells	Carlton	January 14, 2000
Williams	David	January 14, 2000
Wood	Terry	January 14, 2000
Yurman	Joseph	January 14, 2000

Total for Attendance Roster: 61