

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)
)
The Development of Operational, Technical and)
Spectrum Requirements for Meeting Federal, State) WT Docket No. 96-86
And Local Public Safety Agency Communications)
Requirements Through the Year 2010)

To: The Commission

PETITION FOR RECONSIDERATION

The Project 25 Steering Committee (“Project 25”), pursuant to Section 1.429 of the Commission rules, hereby petitions for reconsideration of portions of the Commissions’ *First Report and Order* in the above-captioned proceeding, FCC 98-191 (released September 29, 1998) 63 Fed. Reg. 58645 (November 2, 1998). Specifically, Project 25 urges the Commission to reconsider its decision to defer action on the adoption of a digital interoperability standard for the 700 MHz band. The Commission’s decision did not give appropriate consideration to the Project 25 Phase I Common Air Interface and Vocoder, which have now been approved by the Telecommunications Industry Association (TIA) and the American National Standards Institute (ANSI).

INTRODUCTION

Project 25 was formed in 1989 by the Association of Public-Safety Communications Officials, the National Association of State Telecommunications Directors, and agencies of the Federal government, for the express purpose of developing spectrum efficient

digital interoperability standards for public safety communications equipment. Project 25 has consistently been driven by expressed user needs, and its goals have been to achieve interoperability, graceful migration and multi-source procurement for the nation's public safety agencies. These standards were written to allow public safety agencies an opportunity to significantly reduce the capital investment loss they would normally face when converting from an old technology to a new technology. Project 25's Common-Air-Interface (CAI) accommodates a graceful migration path from 25 kHz analog to 12.5 kHz digital and eventually to 6.25 kHz digital without the public safety users having to leave a large stranded capital investment behind. Where the Commission has proposed a ruthless migration from analog to 6.25 kHz digital, Project 25 standards ensure an orderly migration path. In fact, if the Commission adopted the ANSI/TIA/EIA 102-BAAA, the Project 25 CAI standard and its companion ANSI/TIA/EIA 102-BABA Vocoder standard ensure a migration path from the past to the future. These interoperability standards provide assurance to the public safety user in the new 700 MHz band that they will have both digital interoperability to meet today's and tomorrow's needs and analog interoperability to interface with yesterday's analog technology.

It is important to remember that the Project 25 Steering Committee is primarily a volunteer, representative body composed of eleven members, three representing the Federal government, four representing state governments, and four representing local governments. A partial list of major participants in the Project 25 process is contained in Appendix A. Major funding for Project 25 currently comes from the National Institute of Justice.

In the spring of 1990, Project 25 formed an alliance with the Telecommunications Industry Association (TIA) to provide necessary technical expertise and manufacturer participation. A Memorandum of Understanding (MOU) was also entered into between TIA and Project 25 which allows TIA (an ANSI-accredited standards-setting body) to consider, modify if necessary, and adopt Project 25 standards as TIA/ANSI standards.

Phase I of Project 25 has been the development of a 12.5 kHz digital equipment standard that provides for a graceful migration path and the adoption of spectrum efficient digital technology. The core elements of the Phase I standard are the Common Air Interface (CAI), and the Vocoder, both of which have now been approved by TIA/EIA and ANSI. The CAI was approved on April 15, 1998 (ANSI/TIA/EIA-102.BAAA-1998), and the Vocoder was approved on May 5, 1998 (ANSI/TIA/EIA 102.BABA-1998). The Phase I trunking standard is nearly complete will soon be submitted for TIA/ANSI approval.

Project 25 is actively working on Phase II, a 6.25 kHz standard which will be backwards compatible with Phase I. Significantly, while Phase I is a FDMA standard, Phase II is expected to have both FDMA and TDMA tracks, with backwards compatibility to the Phase I CAI providing interoperability between all Phase II equipment. It should not be lost on the Commission that both the Phase II FDMA track and the secondary TDMA track standards are being developed in cooperation with, TIA and the manufacturing community. In fact, both of the TDMA proposals currently being considered by the Project 25 Steering Committee are, to a large degree, based on existing ANSI/TIA/EIA - Project 25 standards and/or European Telecommunication Standards Institute (ETSI), Terrestrial Trunked Radio (TETRA) standards. In other words, the

Phase I CAI is the baseline interoperability standard that may quickly become interoperable with an existing ETSI/TETRA, 4 slot TDMA, 25 kHz standard or a 2 slot 12.5 kHz standard proposed by an equipment manufacture for those large users that have a need for that technology and can justify its use.

Since both TDMA proposals are based primarily on existing standards, what may be a 5 – 7 year process proposed by the Commission could take place almost immediately within a process that has defined objectives and an established funded mechanism to achieve those objectives and the larger goal of total interoperability.

To facilitate their Phase II objectives, the Project 25 Steering Committee has recently completed 2 years of negotiation on a “Cooperation Agreement” between ETSI/TETRA and the Project 25 Steering Committee. The signing of that “Cooperation Agreement” between the Project 25 Steering Committee and the European Telecommunications Standards Institute (ETSI) allows for the free exchange of certain technology standards. A similar and more comprehensive agreement already exists between ETSI and the Telecommunication Industry Association (TIA).

Last year, in its initial comments, Project 25 estimated that there had been 750,000 hours of user and manufacturer personnel time invested in Phase I. Documentation for Phase I consists of more than 30 documents and 1,800 pages of detailed technical information. An impressive number of Federal, State and Local Government public safety agencies are building or planning on the acquisition of Project 25 compliant equipment or systems which can readily be upgraded to that standard. (Attachment B) Many Federal agencies have already begun to migrate to National Telecommunications Information and Administration (NTIA) mandated 12.5 kHz channels using equipment

that meets Project 25 Phase I standards. Project 25 standards are providing Federal agencies a migration path from analog 25 kHz channels to digital 12.5 kHz channels, as well as full access to all the attributes of digital technology. The value of those standards and their attributes can be seen by the widespread acceptance and use by Federal agencies that require the security provided by the TIA/Project 25 encryption standards. Further background regarding Project 25 and its procedures can be found in its prior comments and reply comments in this proceeding. Copies of the Phase I documentation (CD ROM) will be made available to the Commission upon request.

THE COMMISSION MUST RECONSIDER ITS FAILURE TO ACCEPT THE PROJECT 25 PHASE I COMMON AIR INTERFACE AND VOCODER AS BASELINE DIGITAL INTEROPERABILITY STANDARDS

The Commission appears to accept the reality that an equipment standard is necessary for interoperability to occur in an all-digital environment. Project 25, working side by side with TIA, has developed such a standard. Yet, the Commission has refused that accept standard at this time, preferring to wait for the recommendations of the National Coordination Committee, a federal advisory committee that does not yet exist. Project 25 is concerned that this decision was made without a full understanding of the complexities and costs or standards development and/or, more importantly, of the immediate benefits and attributes of Project 25 Phase I standards. Project 25 is also concerned that, now that an ANSI/TIA/EIA-approved digital, Common-Air-Interface standard exists that will allow public safety agencies to gracefully migrate from their current analog technology to new digital technology, the Commission failed to adopt it. To date, the Commission appears to be unwilling to take the necessary regulatory steps to adopt the ANSI/TIA/EIA/ -

Project 25 CAI to expedite that process, thereby delaying public safety's ability to efficiently use the new spectrum allocation.

The Commission states in the Report and Order that any standard it accepts must be approved in a fair and open process pursuant to ANSI guidelines. First, Project 25 believes very strongly that its process and procedures have been extremely fair and open for participation by all interested parties. Second, and in any event, the Project 25 Phase I CAI and Vocoder have also been approved by TIA, an ANSI-accredited body, and the standards have been certified by ANSI as having been properly adopted. Therefore, there can be no doubt that these are *bona fide* standards eligible for Commission acceptance.

On a substantive level, the Commission states that it is not accepting the Phase I standards because those standards are only for 12.5 kHz equipment, whereas the channel plan for the 700 MHz band is based on 6.25 kHz channels. Yet, the Commission's principal concern elsewhere in the *Report and Order* is not with channel size, *per se*, but rather with efficiency measured by bits per second per Hertz. Thus the Commission states that 12.5 kHz equipment may be use in the 700 MHz band, so long as it meets the same efficiency standard as 6.25 kHz equipment, *i.e.*, 4.8 kbps/6.25 kHz, or 9.6 kbps/12.5 kHz. What the Commission apparently fails to recognize is that the Project 25 Phase I equipment easily meets that efficiency requirement.¹

¹ The interchangeable use of the term's data rate and data throughput without precise definitions tends to confuse what the Commission's requirements are. However, the Project 25 Steering Committee believes the Project 25 Phase I and Phase II standards can or will meet all of the Commissions spectrum efficiency requirements, as we understand them.

CONCLUSION

Therefore, for the reasons stated above, the Project 25 Steering Committee requests the Commission reconsider its decision regarding a digital standard, and accept the ANSI-approved Project 25 Phase I CAI and Vocoder as baseline interoperability digital standards for the 700 MHz Interoperability channels.

Respectfully Submitted,

Craig M. Jorgensen

Craig Jorgensen, Co-Chair Project 25 Steering Committee

Art McDole

Art McDole, Co-Chair Project 25 Steering Committee

ATTACHMENT A
Partial List of Participants in the Project 25 Process

Federal Bureau of Investigation (FBI)
National Telecommunications & Information Administration (NTIA)
U.S. Bureau of Prisons
U.S. Department of Agriculture (USDA)
U.S. Department of Energy (DOE)
U.S. Immigration and Naturalization Service (INS)
U.S. Marshal's Service
U.S. Secret Service
U.S. Treasury Department
Other Federal agencies
State of California
State of Colorado
State of Florida
State of Georgia
State of Kentucky
State of Minnesota
State of New Jersey
State of New York
State of South Carolina
State of Utah
State of Washington
University of California
County of Orange, California
City of Mesa Arizona
Union Pacific Railroad
APCO Canada
APCO International
NASTD
City of Calgary, Alberta
Australia
United Kingdom
France

In addition to those listed, meetings have been attended by a large number of representatives from cities, states, and other public safety agencies. Forty-one manufacturers have signed the Project 25 IPR MOU.

ATTACHMENT B

Partial List of Major Systems that are Project 25 Compatible or can be Upgraded to Project 25 Full Compatibility²

FBI: \$4,400,00 contract, with anticipated \$1.6 billion upgrade in next few years
INS: \$40,000,000.00 in portable equipment
State of Michigan: \$187,000,000.00
State of Vermont: (large system, Total estimated cost is unknown at this time)
Counties of Imperial and San Diego, CA: Total estimated costs are unknown at this time
City of Baltimore, Maryland Total estimated cost is unknown at this time
City of Baltimore, Maryland: Total estimated cost is unknown at this time
City of Los Angeles, California: Total estimated cost \$54,000,000.00
City of Mesa, Arizona Estimated cost, \$17,000,000.00
City of Phoenix, Arizona: Estimated cost, \$70,000,000.00
Canadian Department of Corrections: A very large portable system, with an unknown estimated total cost
US Department of Energy at Lawrence Livermore: Estimated cost is \$10,000,000.00
US Department of Energy at Lawrence Berkeley: Estimated cost is \$2,000,000.00
US Department of Interior (including Bureau of Land Management, Bureau of Reclamation, Fish & Wildlife Service, National Interagency Fire Center, and National Park Service: Total estimated contract value unknown at this date.
State of Delaware: Estimated total cost is \$37,000,000.00
State of Michigan: Estimated total cost is \$187,000,000.00
State of Florida: Estimated total cost when completed is \$287,000,000.00

² The cost estimates included in this list are based on information provided by users. The Project 25 Steering Committee has no way to validate whether these costs will actually reflect the final costs to the end users.