

C. Concerns With Having Conformance to the APCO Project 25 Specification As a Condition of a Procurement

Because of this monopolistic market structure and the dominant supplier's "stranglehold" on the public safety market which has been strengthened through the Phase I APCO Project 25 specification, we have a concern when conformance with the Phase I APCO Project 25 specification is made a condition of a particular procurement. Our concern is that, if the Phase I APCO Project 25 specification is made a condition of a particular procurement, it immediately limits competition and prevents the introduction of technically superior, and more spectrum efficient products into the marketplace. Therefore, having read the comments in the first round of pleadings and finding no convincing evidence that refutes our findings regarding the concentrated nature of the market and the influence of the dominant supplier in that market over the standards-setting process, we recommend that the Commission adopt a rule that would preclude a public safety agency from specifying compliance with a technical standard, such as the Phase I APCO Project 25 specification, *as a condition of the procurement*.<sup>47</sup>

We want to make it crystal clear that we are not suggesting that the Commission in any way preclude any vendor from producing and offering systems/equipment based on the Phase I APCO Project 25 specification. Rather, what we are saying is that the public safety agency should (as good procurement practices dictate) specify objective performance standards that any

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<sup>46</sup> Comments of the Association of Federal Communications Consulting Engineers ("AFCCE") dated October 21, 1996 at p. 3.

<sup>47</sup> We believe the Commission has clear authority under the Communications Act of 1934, as amended, to establish such a rule. Our arguments in this regard are set forth in Section IV.E. of this pleading.

offered system must meet. Based on those objective performance standards, the vendors would then be free to offer systems/equipment based on the Phase I APCO Project 25 specification, the Ericsson F-TDMA specification, other FDMA specifications, the TETRA standard, or any other available technology. In that way, public safety wireless communications users would have the widest array of products and systems from which to choose, and the Commission would (a) have assurance that more spectrum efficient technology was not being prevented from emerging by monopolistic market forces and (b) be moving decisively and appropriately toward achieving “[its] goal in this proceeding, as in others, to create a regulatory environment which fosters competition.”<sup>48</sup>

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<sup>48</sup> Notice at para. 97.

D. Concerns With Having the APCO Project 25 Specification Serve as a Digital Baseline Technology

With regard to the future, Ericsson agrees, as we stated in our comments, that there is a need to examine a baseline interoperability requirement in the evolving digital environment. As noted previously, however, because of (a) the economically concentrated nature of the public safety market, (b) the tightening of the dominant supplier's grip on that market through the Phase I APCO Project 25 specification and its associated Intellectual Property Rights, and (c) the documented problems associated with previous standards-setting activities in the industry, Ericsson, in its comments, strongly recommended that the Commission require any future effort to establish a baseline technology be conducted by an accredited standards-setting organization. We went on to recommend that, if, however, a non-accredited standards-setting organization attempts to promulgate such standards, then such an organization should be required to follow and comply with the principles set forth in Section 273(d)(4) of the Communications Act of 1934, as amended. Just as we stated above, having read the comments in the first round of the pleading and finding no convincing evidence that refutes our findings regarding the concentrated nature of the market and the influence of the dominant supplier in that market over the standards-setting process, we stand behind our original recommendation. Otherwise, "...the pace of technological innovation is slowed and equipment prices are higher than necessary."<sup>49</sup>

While many if not most of the parties in the instant proceeding play at least lip service to the need for a fair and open process in establishing a digital common mode of interoperability (and

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<sup>49</sup> AFCCE Comments at p. 3.

public safety wireless standards more generally), questions have been raised about the Commission's authority to adopt rules similar to those set forth in Section 273(d)(4) in this area. We think the Commission does have clear authority to do so for the reasons given immediately below.

E. Authority of the Commission to Ensure Fair and Open Standards-Setting

In FCC Public Notice 96-403, the Commission added, as an adjunct in Docket No. WT 96-86, a request for comments on whether the general principles articulated in Section 273(d)(4) of the Communications Act of 1934, as amended by the Telecommunications Act of 1996 ("the Act") might be useful in the development of standards initiated in the future for public safety equipment and systems. Accordingly, the Commission sought comment on whether the Act generally provides the Commission with authority to impose requirements similar to those identified in Section 273(d)(4), and, if so, whether to require open and fair processes, similar to those described in the Act, in the development and adoption of future standards for public safety wireless equipment and systems.

While some parties may challenge the ability of the Commission to adopt rules and regulations embodying the principles contained in Section 273(d)(4) of the Act, and may cast doubt upon the necessity of the Commission to act, there should be no doubt that the Commission has complete authority to adopt such rules and regulations. When the particular facts regarding the public safety wireless communications market are considered, it is readily apparent that not only does the Commission have the ability or authority to act, but also the Commission has the

obligation to act. Failure to act under these market conditions would mean that the Commission could not fully satisfy its Congressionally mandated obligations.

There is no need here for an elaborate legal analysis to establish that the Act confers broad powers to the Commission to fulfill its Congressional mandate of regulating interstate and foreign communications by wire and radio, as well as all of the elements of such communications.<sup>50</sup> Those powers have been well established for many years. Succinctly stated, the Commission may adopt rules and regulations,<sup>51</sup> maintain control over all channels of radio transmission,<sup>52</sup> encourage new technologies and services,<sup>53</sup> encourage more extensive and effective use of radio,<sup>54</sup> and initiate inquiries into any matter hindering performance of the agency's duties.<sup>55</sup> In terms of land mobile radio, the Commission is further directed to evaluate its actions in terms of the action's ability to promote the safety of life and property,<sup>56</sup> to improve the efficiency of spectrum use,<sup>57</sup> and, last but certainly not least, to encourage competition.<sup>58</sup>

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<sup>50</sup> See Southwestern Cable Co. v. US, 392 U.S. 157 (1968)

<sup>51</sup> 47 USC 154(i)

<sup>52</sup> 47 USC 301

<sup>53</sup> 47 USC 157(a)

<sup>54</sup> 47 USC 303(g)

<sup>55</sup> 47 USC 403

<sup>56</sup> 47 USC 332(a)(1)

<sup>57</sup> 47 USC 332(a)(2)

<sup>58</sup> 47 USC 332(a)(3)

The foregoing enabling language does not mean that the Commission's power to adopt rules and regulations affecting land mobile radio is unbridled. However, the limits placed on the Commission's powers are not overly confining. The test used to ascertain the validity of Commission actions, e. g., the issuance of particular rules and regulations, is whether or not the particular action in question is "reasonably ancillary" to the effective performance of the Commission's obligations.<sup>59</sup>

To determine whether an action is reasonably ancillary requires an analysis of the facts in each separate proceeding. Case law does not provide a simple "yes" or "no" mechanism to determine the validity of each action undertaken by the Commission. Rather, each action must be analyzed in terms of its ability to foster fulfillment of one of the Commission's duties.<sup>60</sup> It must be found that there exists a rational relationship between the proposed action and fulfillment of a Commission duty. In other words, the proposed action must be justified in terms of the relationship between the proposed action and a Commission obligation or obligations. As regards public safety wireless communications, there exist a number of facts which have led us to the conclusion that the Commission can and should act in this instance.<sup>61</sup>

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<sup>59</sup> See National Ass'n of Independent Television Producers and Distributors v. Federal Communications Commission, 502 F.2d 249 (C.A. 1974)

<sup>60</sup> See Home Box Office, Inc. v. F.C.C., 185 U.S.App.D.C. 142, 567 F.2d 9 (CADC 1977), certiorari denied 434 U.S. 829, 98 S.Ct. 111, 54 L.Ed.2d 89

<sup>61</sup> In normally competitive markets, i.e. ones where the existing competitive forces result in vigorous, *actual* competition, we would not recommend that the Commission become a standards development organization or exercise regulatory oversight over standards setting even though statutory enactments allow this as a matter of law. In a highly concentrated market where competition is minimal, such as the public safety wireless market, regulatory action becomes essential if competition is to be preserved.

As noted previously, our conclusion that the public safety land mobile market is excessively concentrated remains unchallenged. This concentration can be attributed in no small part to previous standards-setting activities which resulted in a noncompetitive market segment contrary to the Commission's obligations. Unless one believes that the Commission's authority is limited to allocating spectrum and issuing licenses, a totally untenable position in light of the statutory directives previously noted, the current excessive concentration, by itself, provides a legally sufficient basis for the Commission to adopt rules embodying the principles of Section 273(d)(4) for application to the public safety wireless market. Furthermore, recalling that previous standards-setting activities in this market have produced anticompetitive effects still being felt today,<sup>62</sup> Ericsson concludes that the sum of the evidence produced herein provides a mandate for the Commission to act and promulgate appropriate rules to embody those principles. To do otherwise would perpetuate a highly concentrated market and re-entrench the dominant supplier in that already concentrated market.

Additionally, there are a number of obligations that Congress has placed on the Commission which could independently be used to establish the validity of any rules or regulations the Commission may adopt regarding standards setting.<sup>63</sup> For example, the Commission has an

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<sup>62</sup> The current dominant public safety equipment manufacturer gained a "sole source, proprietary" market position for at least six years as the direct result of the previous APCO 16 standards-setting activity, until alternative technologies and implementations became available. While inroads into this "sole source, proprietary" position have occurred in more recent years, the reduction in market concentration has not been significant. See Hatfield Associates, Inc., Competitive Considerations Associated With APCO Project 25, (Jan. 15, 1996), at page 10ff.

<sup>63</sup> The Commission could proceed, on its own motion, to establish standards for public safety communications systems/equipment and in doing so would be bound by the terms of the Administrative Procedures Act requiring such standard development be conducted on an open

interest in assuring the efficient utilization of spectrum. Thus, any standard which does not maximize spectrum efficiency eviscerates the Commission's satisfaction of one of its most important obligations. Today, there exists clear evidence that standards-setting activities in the public safety area continue to be influenced by the market incentives of the dominant systems/equipment provider.<sup>64</sup> In the light of this evidence, Ericsson believes that the Commission has the right -- nay the obligation -- to ensure that any standard is adopted free of improper market influences that perpetuate market concentration rather than facilitate the provision of more spectrum efficient systems/equipment.

In view of the foregoing, we believe that the Commission should adopt rules and regulations applicable to standards-setting activities for systems/equipment in the public safety wireless market that embrace the principles embodied in Section 273(d)(4) of the Act . The rules that govern any standards-setting process should be guided by the following principles:

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and public record affording all interested parties the opportunity to file comments and appeal adverse decisions. When the Commission forbears to develop such standards, it has the right to expect and the duty to demand such standard development be conducted in the same manner that the Commission itself would be required to follow.

<sup>64</sup> See page 25ff of the Initial Public Offering Registration Statement (S-1) filed by Transcrypt International, Inc. on October 18, 1996 with the Securities and Exchange Commission for evidence/confirmation of the influence exerted by the dominant firm in current standards-setting activities. The discussion on these pages also provides evidence of the questionable competition introduced to the public safety wireless communications market as a result of these current standards-setting activities. The referenced Registration Statement is available on the Internet at <http://www.sec.gov/Archives/edgar/data/1023516/0000950148-96-002281.txt>. It should also be noted that an amended Registration Statement was filed on November 21, 1996. However, the amendments do not affect the information in the original Registration Statement that forms the basis for the statements contained herein. The URL for the amended Registration Statement is <http://www.sec.gov/Archives/edgar/data/1023516/0000950148-96-002761.txt>.

**Openness** - all materially affected and interested parties must have the ability to participate, including voting privileges on the consensus or decision-making body;

**Lack of Dominance** - the consensus or decision-making body must not be dominated by any one interest group;

**Consideration of Views and Objections** - the consensus or decision-making body must seriously and thoroughly review and respond to all comments and objections and respond to such comments and objections “on the record;”

**Presence of an Appeals Mechanism** - affected interests who believe they are treated unfairly must have the ability to have the issues reviewed by an impartial third party.

Analysis of recent standards-setting activities, particularly the process utilized during APCO Project 25, Phase 1, provides clear evidence that the four principles outlined above have not been followed. For example, with regard to openness, the APCO Project 25 Steering Committee was the consensus or decision-making body during the Phase 1 process and the Steering Committee jealously guarded that role. For example, when disputes arose, APCO Project 25 has stated that the Steering Committee has “the exclusive authority to select the standard in accordance with their own judgement”<sup>65</sup> (emphasis added). Yet, this group was made up solely of representatives of federal, state, and local users. Other materially affected and interested parties, such as manufacturers or potential service providers, had no “official” voting privileges on this crucial consensus or decision-making body.

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<sup>65</sup> Letter from Craig Jorgensen, Project 25 Steering Committee Co-Chairman to Charles Bethards, Chairman TIA TR-8.0 Technical Committee, dated July 2, 1993.

With regard to the requirement for lack of dominance, the consensus or decision-making body in Phase 1 of APCO Project 25, i.e., the Steering Committee, was not just dominated by one interest group, it consisted exclusively of members of that interest group -- namely, end users. In terms of consideration of views and objections, whether or not the APCO Project 25 Steering Committee seriously took into account all comments and objections is unknown since portions of the deliberations of this consensus and decision-making body took place behind closed doors and, to the best of our knowledge and belief, no minutes of its deliberations were ever released to the public. Finally, with regard to the presence of an appeals mechanism, the APCO Project 25 Phase 1 process did not provide the requisite mechanism for review by an impartial third party since the Steering Committee, with its "exclusive authority," acted as an autonomous body.

A likely result of these deficiencies in the Phase 1 of APCO Project 25 is the establishment of a "standard" that will perpetuate an already unacceptably concentrated market by further entrenching the dominant supplier -- all at the expense of the federal, state, and local taxpayers and at the expense of the Commission's duties (a) to encourage the development and deployment of more spectrum efficient systems/equipment and (b) to promote competition in the provision of such systems/equipment.

In light of the above, Ericsson continues to believe that all standards should be developed by ANSI accredited organizations that are subject to and comply with the extensive ANSI requirements which embody the four principles listed earlier. In the event that standards are developed by organizations not ANSI accredited (and history has proven this to be a not uncommon occurrence), we believe that the Commission must adopt appropriate rules and

regulations ensuring such organization's standard development process embodies and complies with these four principles. Failure on the part of the Commission to require such minimal steps will result in the intentional or inadvertent adoption/endorsement of standards that will frustrate the Commission in fulfilling its Congressionally mandated obligations.

## V. SUMMARY OF PRINCIPLE RECOMMENDATIONS

Based on our review of the comments in the first round of the proceeding and the analysis and arguments put forth herein, we arrived at the following principle recommendations:

*First*, the Commission should (a) take immediate steps to reallocate portions of the upper region of the UHF television band and make it available to meet some of the more pressing needs of the public safety community and (b) give serious consideration to modifying the core channel concept in the DTV proceeding to allow public safety users to gain access to spectrum in the desirable VHF and lower UHF regions of the spectrum.

*Second*, the Commission should also accelerate the shift to 6.25 kHz equivalent channel spacing by the year 1999 to ensure that public safety spectrum requirements can be met within the amount of spectrum forecast by the PSWAC.

*Third*, the Commission should adopt a suite of incentives for public safety agencies to adopt more spectrum efficient technologies as soon as possible, especially in major urban areas where spectrum congestion is most prevalent. Such incentives are needed given the special environment in which public safety wireless communications operates.

*Fourth*, the Commission should adopt rules to establish 25 kHz analog FM (migrating to 12.5 kHz) as the common mode of communications on the interoperability channels. This would

allow the proponents of various technological solutions, including more spectrum efficient systems, to offer their systems/equipment in a competitive market while meeting legitimate concerns about interoperability.

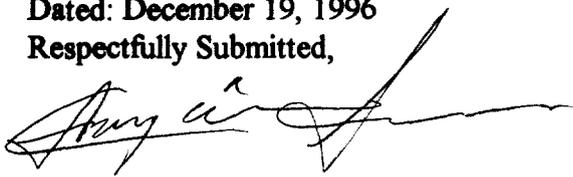
*Fifth*, recognizing the concentrated nature of the market and the influence of the dominant supplier in that market over the standards-setting process, the Commission should adopt a rule that would preclude a public safety agency from specifying any technical standard (such as the Phase I APCO Project 25 specification) *as a condition of any procurement* that would involve the use of spectrum allocated to public safety purposes.

*Sixth*, the Commission should establish such rules and regulations as may be necessary to ensure that any future effort to establish a baseline technology be conducted by an accredited standards-setting organization or, if a non-accredited standards-setting organization attempts to promulgate such standards, to ensure that it follows and complies with the principles set forth in Section 273(d)(4) of the 1934 Communications Act (as amended). Such rules and regulations should (a) embody the four principles of Openness, Lack of Dominance, Consideration of Views and Objections and an Appeals Process that must guide all standards setting bodies and (b) include such rules and regulations to assure compliance. Proposed rules and regulations for consideration by the Commission are attached hereto as Appendix A.

By taking these six steps, the Commission will be taking important steps in the direction of relieving the present deficiencies in public safety wireless communications while creating a regulatory environment which fosters competition in the market for public safety wireless systems/equipment.

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Dated: December 19, 1996  
Respectfully Submitted,



**Dr. Lars-Goran Larsson**  
**Director, Standards and Regulations**

## **APPENDIX A**

### **Procedures for the Development and Implementation of Standards for Public Safety Land Mobile Radio Equipment.**

#### **Section 1.1 Applicability.**

(a) Industry-wide standards or generic requirements for public safety communications equipment may be undertaken by an American National Standards Institute accredited organization or by a non-accredited standards development organization. The requirements set forth in this Subpart apply to activities by non-accredited standards development organizations that develop, as a joint developer or a sole developer, industry-wide standards and generic requirements whether voluntary or mandatory for public safety communications radio equipment.

#### **Section 1.2 Openness.**

(a) Participation in any proceeding to develop standards or generic requirements for public safety communications radio equipment by a non-accredited standards development organization shall be open to all persons who are directly and materially affected by the activity in question.

(b) Participation shall not be conditional upon membership in any organization nor restricted on the basis of technical or other qualifications.

#### **Section 1.3 Lack of Dominance.**

(a) The non-accredited standard development decision-making body shall have a balance of interests and shall not be dominated by any single interest group or party.

#### **Section 1.4 Public Notice of Standards Development Activity.**

(a) A non-accredited standards development organization that undertakes to create, revise or reaffirm any standard or generic requirement for public safety communications equipment shall issue a Public Notice to all known and reasonably affected interests of their intent to do so and shall invite their participation on a reasonable and non-discriminatory basis.

(b) The Public Notice required under this section shall include a clear and meaningful description of the purpose of the proposed activity.

(c) A non-accredited standards development organization shall develop written procedures that will govern the methods used for developing the industry-wide standard or generic requirement. Such written procedures shall be made available to all interested parties at the time Public Notice is given of the intent of the standard developer to create, revise or reaffirm an industry-wide standard or generic requirement for public safety communications equipment.

(d) Such standards development organization shall also request the Commission to issue a Public Notice describing the organization's intent to develop, revise or reaffirm any standard or generic requirement for public safety communications equipment, and which such notice shall also invite participation by all on a reasonable and non-discriminatory basis, and which such notice shall describe the procedures to be used to express an intention to participate in such process.

#### **Section 1.5 Consensus and Consideration of Views and Objections.**

(a) A non-accredited standards development organization that undertakes to create, revise or reaffirm an industry-wide standard or generic requirement for public safety communications equipment shall reach a consensus of all participants on the procedures that will be followed in developing and approving the industry-wide standard or generic requirement.

(b) A non-accredited standards development organization shall give prompt consideration and review to the written views and objections of all participants, and shall make a concerted effort to resolve all expressed objections. Each objector shall be advised in writing of the disposition of the objection and the reasons therefor.

(c) A non-accredited standards development organization that undertakes to create, revise or reaffirm an industry-wide standard or generic requirement for public safety communications equipment shall reach a consensus of all the participants on the industry-wide standard or generic requirement.

#### **Section 1.6 Publication of Standard.**

(a) When the standards development activity is completed, the non-accredited standards development organization shall publish a preliminary text of the industry-wide standard or generic requirement and provide all participants and interested parties a final opportunity for public comment. The comment period shall be a minimum of sixty days. An effort shall be made to resolve any objections filed regarding the preliminary draft.

(b) Following receipt of comments on the preliminary text, the non-accredited standards development organization shall publish a final text of the industry-wide standard or generic requirement, including the comments in their entirety of any participant or interested party that requests to have its comments so published.

### **Section 1.7 Appeals.**

(a) The non-accredited standards development organization shall develop an appeals mechanism for the impartial handling of substantive and procedural complaints regarding any action or inaction of the standards developer or the substance of the industry-wide standard or generic requirement.

(b) The appeals mechanism shall be published and mutually agreed upon by all participants within sixty days of the date of Public Notice announcing the standards developer's intent to develop, revise or reaffirm an industry-wide standard or generic requirement for public safety communications radio equipment.

(c) Any interested participant may use the Default Dispute Resolution Process set forth in §64.1703 of this Title, whether or not all participants have agreed upon the appeals mechanism required by subsection 1.7(b) above.

### **Section 1.8 Patents.**

(a) The development of industry-wide standards and generic requirements for public safety communications equipment may require the use of patented items and other restricted intellectual property rights. A non-accredited standards development organization, upon receiving notice that a proposed industry-wide standard or generic requirement may require the use of patented items or other restricted intellectual property rights, shall follow the procedures of the American National Standards Institute, Procedures for the Development and Coordination of American National Standards (March 22, 1995), or any subsequent revisions thereto, in handling such patent issues.

(b) In addition to any requirements outlined in the ANSI procedures referenced in subsection 1.8(a), any memorandum of understanding concerning utilization of patented items or other restricted intellectual property rights, shall include copies of all license agreements to be offered by those claiming patent or other intellectual property rights.

**Section 1.9 Records.**

(a) A non-accredited standards development organization that undertakes to create, revise or reaffirm an industry-wide standard or generic requirement for public safety communications equipment shall prepare and maintain records demonstrating compliance with the requirements set forth in this Subpart.

**Section 1.10 Enforcement.**

(a) If a non-accredited standards development organization creates, revises or reaffirms any industry-wide standard or generic requirement for public safety radio communications equipment, either as a joint developer or as a sole developer, and such standards development organization does not fully comply with the requirements of this Subpart, the Commission will:

(1) Not approve any public safety regional plan that is substantially based upon or substantially complies with such industry-wide standard or generic requirement, and

(2) Not grant equipment authorization, approval or certification as required by Part 2 of this Title, for any public safety communications equipment that substantially complies with such industry-wide standard or generic requirement, and

(3) Withdraw or revoke any license issued to any public safety agency using radio communications equipment that substantially complies with such industry-wide standard or generic requirement, and

(4) Not issue any new license to any public safety agency to use radio communications equipment that substantially complies with such industry-wide standard or generic requirement.

(b) No public safety radio communications equipment, substantially complying with an industry-wide standard or generic requirement developed, revised or reaffirmed by a non-accredited standards development organization that did not comply with the requirements of this Subpart, shall be sold, leased, offered for sale or lease, imported, shipped or distributed until such public safety communications equipment has been type approved, accepted or certificated as required by Part 2 of this Title. Advertising or display of such public safety communications equipment, prior to type approval, acceptance or certification, whether or not such advertising or display contains the conspicuous notice required by §2.803 of this Title, shall be construed as offering to sell or lease such equipment contrary to the requirements of this subsection.