

service providers.<sup>199</sup> The parties argue that, despite the express language in the 1994 legislation barring caller location disclosure (except where “determined from the telephone number”), Congress did not intend to preclude location determination and disclosure via other means (such as ALI), in the ordinary course of good faith 911 operations.<sup>200</sup>

96. In their comments regarding the Consensus Agreement, most commenters agree with the arguments in the Consensus Agreement that Congress did not intend to preclude location determination and disclosure in the ordinary course of 911 operations.<sup>201</sup> Vanguard also argues that the Wiretap Act is not applicable to the operations of E911 because the language refers to “information acquired solely pursuant to the authority for pen registers and trap and trace devices.”<sup>202</sup> Alliance contends that it is not appropriate to limit the liability of wireless carriers.<sup>203</sup> In addition, several commenters request specific protection from liability for (1) passing Calling Party Number (CPN) on non-911 calls in violation of per line blocking requirements where the carrier is incapable of passing CPN on 911 calls and blocking it on other calls, (2) providing inaccurate location information, and (3) negligence.<sup>204</sup> Ameritech contends that the issue of liability for uncompleted or ineffective E911 connections is unresolved, but is arguably beyond the scope of the proceeding.<sup>205</sup>

#### b. Discussion

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<sup>199</sup> *Id.*

<sup>200</sup> *Id.*

<sup>201</sup> See, e.g., RCC (CA) Comments at 7-8; AMSC (CA) Comments at 9; BellSouth (CA) Comments at 8-9; Vanguard (CA) Comments at 5.

<sup>202</sup> Vanguard (CA) Comments at 5.

<sup>203</sup> Alliance (CA) Reply Comments at 10.

<sup>204</sup> BellSouth (CA) Comments at 8-9; GTE (CA) Comments at 6; US West (CA) Comments at 10.

<sup>205</sup> Ameritech (CA) Reply Comments at 3-4.

97. The Consensus Agreement suggests that the Commission resolve whether language in the Wiretap Act affects 911 operations or the legal liability of carriers.<sup>206</sup> The relevant language of the statute provides that:<sup>207</sup>

[W]ith regard to information acquired solely pursuant to the authority for pen registers and trap and trace devices (as defined in section 3127 of title 18, United States Code), such call-identifying information [which the Section requires telecommunications carriers to enable Federal Government officials to access pursuant to a court order or other lawful authorization] shall not include any information that may disclose the physical location of the subscriber (except to the extent that the location may be determined from the telephone number).

98. The Commission has requested that the Department of Justice provide us with a legal opinion regarding the interpretation of this provision as it relates to the requirements contained in the rules we are adopting. We anticipate that we will receive that legal opinion within the 60 day period before those rules are scheduled to become effective. When we receive the Department of Justice's legal opinion, we will address the effect of the Wiretap Act on our rules.

99. We conclude that it is unnecessary to exempt providers of E911 service from liability for certain negligent acts, as PCIA and US West request. If the E911 wireless carriers wish to protect themselves from liability for negligence, they may attempt to bind customers to contractual language, require public safety organizations to hold them harmless for liability, as suggested by US West,<sup>208</sup> or, if the liability is caused by the rulings of the Commission, argue that the actions complained of were caused by acts of public authority.<sup>209</sup> We are not persuaded by the argument advanced by some parties that the Commission should provide wireless carriers the same broad immunity from liability that is available to landline local exchange carriers. This local exchange carrier immunity generally is a product of provisions contained in local exchange carrier tariffs. We conclude that covered carriers can afford themselves similar protection by including similar provisions in contracts with their customers.

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<sup>206</sup> Consensus Agreement at 4.

<sup>207</sup> Section 1002(a) of the Wiretap Act, 47 U.S.C. §1002(a).

<sup>208</sup> US West (CA) Comments at 10.

<sup>209</sup> See *Shippers National Freight Claim Council v. Interstate Commerce Commission*, 712 F. 2d 740, 745 (2d Cir. 1983).

100. While the Interstate Commerce Commission (ICC) has issued rulings affecting the liability of carriers subject to their rules and requirements, those actions were taken pursuant to specific language that gives the ICC authority to modify the imposition of liability.<sup>210</sup> No such statutory provision is applicable here. In addition, before we would consider taking any action to preempt state tort law, we would need to demonstrate that our rule with respect to limitations on carrier liability is essential to achieving the goals of the Communications Act.<sup>211</sup> We note that the Court of Appeals for the D.C. Circuit has struck down, as infringing upon the jurisdiction of state courts, a Federal Energy Regulatory Commission ruling that conditioned the granting of licenses for dams on a rule of strict liability for property damage caused by seismically induced dam failure.<sup>212</sup> The court noted that FERC failed to show that the action was essential to achieving the goals of the Federal Power Act. In our view, displacing the jurisdiction of state courts over tort suits for negligence in installation, performance, provision, or maintenance of E911 systems is not necessary to the inauguration of E911 service. We therefore are unable to find that general exemption from liability is essential to achieving the goals of the Communications Act.

101. Aside from the requests for general exemption from liability, several carriers request specific exemptions. BellSouth expresses concern regarding liability for violating per line blocking requirements. GTE contends that it cannot provide 100 percent accurate location information. We find that BellSouth has not provided sufficient evidence to show that it is unable to permit 911 location information to be transmitted without transmitting location information for other calls. Therefore, there is an inadequate record to determine whether exemption from liability for violating per line blocking requirements is essential to the inauguration of E911. Consequently, we shall not grant BellSouth's request for exemption, but shall decide such requests on a case-by-case basis. With respect to GTE's contention that we do not require 100 percent accuracy, a state court finding of liability would not thwart any Commission goal. We do not require 100 percent accuracy, but we expect that as technology allows for greater accuracy, wireless providers will upgrade their capabilities accordingly.<sup>213</sup>

## 5. Preemption

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<sup>210</sup> Southern Railway Co. v. United States, 194 F. Supp. 633 (E.D. Va. 1961).

<sup>211</sup> See South Carolina Pub. Serv. Authority v. FERC, 850 F. 2d 788 (D.C. Cir. 1988).

<sup>212</sup> *Id.* at 792-95.

<sup>213</sup> We explore this issue in greater detail in the Further Notice we are adopting today. See paras. 135-142, *infra*.

### a. Background and Pleadings

102. In the *Notice*, we stated that we could preempt state regulation that affects interstate service when it is not possible to separate the interstate and intrastate components of the service or when it thwarts or impedes a federal policy. We asked for comment with respect to whether any conflicts exist between our proposed rules and state regulations. Commenters opposing preemption were asked to provide alternatives to ensure that Federal, state, and local requirements do not thwart the nationwide goal of achieving compatibility with enhanced 911 systems.<sup>214</sup>

103. Most commenters supported the need for preemption of state standards to ensure nationwide deployment of consistent technology.<sup>215</sup> Springwiche Cellular, for example, claimed that it can provide the location of the cell site in Connecticut but not in Massachusetts, due to state restrictions in its interconnection arrangements with the LECs.<sup>216</sup> Two state agencies oppose Federal preemption on the grounds that state and local funds remain the sole support of these systems.<sup>217</sup>

### b. Discussion

104. We begin this discussion by emphasizing our understanding of states' interests in telecommunications and public safety matters, including E911 operations. As we stated in the *Notice*, however, it is well established that this Commission may preempt state regulation when (1) the matter to be regulated has inseparable interstate and intrastate aspects; and (2) preemption is necessary to protect a valid Federal regulatory objective.<sup>218</sup> A primary objective in this proceeding is to fulfill our statutory mandate of "promoting safety of life and

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<sup>214</sup> *Notice*, 9 FCC Rcd at 6181 (para. 59).

<sup>215</sup> See, e.g., PCIA Reply Comments at 13; Nextel Reply Comments at 7; ICSAR Reply Comments at 3-4.

<sup>216</sup> Springwiche Comments at 7.

<sup>217</sup> TX-ACSEC Comments at 13; Oregon Comments at 6.

<sup>218</sup> *Notice*, 9 FCC Rcd at 6181 (para. 59). See *Louisiana Public Service Commission v. FCC*, 476 U.S. 355 (1986); *Illinois Bell Tel. Co. v. FCC*, 833 F. 2d 104 (D.C. Cir. 1989); *California v. FCC*, 905 F. 2d 1217 (9th Cir. 1990); *Texas Public Utility Comm'n v. FCC*, 886 F. 2d 1325 (D.C. Cir. 1989); *North Carolina Utilities Comm'n v. FCC*, 552 F. 2d 1036 (4th Cir.), cert. denied, 434 U.S. 874 (1977); *North Carolina Utilities Comm'n v. FCC*, 537 F. 2d 787 (4th Cir.), cert. denied, 429 U.S. 1027 (1976).

property”<sup>219</sup> through wireless communications by facilitating the deployment of E911 capabilities to the maximum reasonable extent throughout the Nation. In that regard, we agree with those commenters, including state and local public safety organizations, who argue that Federal preemption of intrastate E911 regulation may be necessary to ensure the achievement of various inseverable, nationwide aspects of E911 operations, including: (1) ubiquitous E911 operational compatibility; (2) the avoidance of state-by-state technical and operational requirements that would burden equipment manufacturers and carriers; and (3) the averting of confusion by end users, especially roamers, who are attempting to contact emergency service providers.<sup>220</sup>

105. Moreover, those few state agencies who oppose preemption do not provide any reasonable alternative means to achieve these objectives other than by preemption. Against this background, we conclude that state actions that are incompatible with the policies and rules adopted in this Order are subject to preemption. Since we have not been presented with evidence that specific state regulations are, in fact, incompatible with national E911 goals, we shall not preempt any state regulations at this time. Instead, we shall examine the need for specific preemption in the future on a case-by-case basis, relying on the guidelines expressed in this Order.

## **6. Equipment Manufacture, Importation, and Labelling**

### **a. Background, Pleadings, and Consensus Agreement**

106. In the *Notice*, we sought comment regarding whether it may be necessary to establish specific requirements for base and mobile transmitters to ensure compliance with the objectives of this proceeding, particularly with regard to ANI and ALI. The *Notice* also suggested that if specific requirements for transmitters are necessary, we might require the submission of information demonstrating compliance as part of the equipment authorization process. We further requested comment on the appropriateness of cut-off dates for manufacture, importation, and marketing of equipment that may not meet the standards and how much time should be allowed for transitions to equipment that meets the new requirement. Assuming that such manufacturing standards are necessary, we then asked for comment as to whether to require non-compliant equipment to be labelled with a warning statement on the device and on the outside of the packaging in which it is marketed.<sup>221</sup>

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<sup>219</sup> 47 U.S.C. § 151.

<sup>220</sup> See, e.g., CTIA Reply Comments at 13; Nextel Reply Comments at 7; ICSAR Reply Comments at 7.

<sup>221</sup> *Notice*, 9 FCC at 6180 (para. 55).

107. While commenters representing public safety groups supported our proposals in their initial comments,<sup>222</sup> commenters representing wireless service providers and wireless equipment manufacturers unanimously opposed the proposals because of the uncertainty of the implementation standards.<sup>223</sup> Most of the parties opposing the proposals argued that the Commission should not consider altering the equipment requirement until technical solutions are reasonably identified and available. For example, Motorola asserted that overlay systems may be able to provide location information without requiring changes to the subscriber unit or the base station, or to either system element.<sup>224</sup> Thus, these parties strongly urged that any cut-off dates be tied, not to the effective date of rules adopted within this proceeding, but instead to the standards development process which the industry must complete before 911 access can be defined and implemented.<sup>225</sup>

108. Although some commenters supported the labelling requirements proposal,<sup>226</sup> most commenters strongly opposed the proposal, arguing that mandatory package and handset labelling is less than helpful in achieving the intended objectives for a number of reasons.<sup>227</sup> Some commenters noted that location technology might not be built into the handset, thereby making warning labels obsolete as soon as network-based location technology becomes operational.<sup>228</sup> Commenters also contended that packaging labels could be misleading and that it is better to accomplish customer education through other means, such as billing manuals

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<sup>222</sup> See APCO Comments at 51; TX-ACSEC Comments at 12; ICSAR Comments at 7; Coast Guard Comments at 16.

<sup>223</sup> See, e.g., AT&T Comments at 40; CTIA Comments at 22; PCIA Comments at 25-26; Southwestern Bell at 23-26; Nortel Reply Comments at 13; Pertech Comments at 7-8; Motorola Comments at 26; TIA Comments at 15; Nextel Comments at 7-8.

<sup>224</sup> Motorola Comments at 25-26.

<sup>225</sup> *Id.* at 25; see PCIA Comments at 25 (arguing that cut offs are inappropriate because there is currently no basis for determining when compliant technology can be developed).

<sup>226</sup> See, e.g., APCO Comments at 51; TX-ACSEC Comments at 5, 10; New Jersey Comments at 17; ICSAR Comments at 7; Coast Guard Comments at 16.

<sup>227</sup> See, e.g., AT&T Comments at 40; Caddo Comments at 7-8; CTIA Comments at 22; Motorola Comments at 26; Nextel Comments at 8; NATA Comments at 16-17; Nortel Comments at 52; PCIA Comments at 25-26; RCA Comments at 11; and SBC Comments at 23-24.

<sup>228</sup> See, e.g., PCIA Comments at 26; CTIA Comments at 22; AT&T Comments at 40 (noting that labelling will not reflect upgrades to system capabilities); Motorola Comments at 26.

and billing information.<sup>229</sup> In reply comments, TX-ACSEC changed its view, concluding that labels on wireless handsets are not the best method of educating end users regarding the limitations of the devices related to 911 calls.<sup>230</sup>

109. The parties to the Consensus Agreement note that the Commission was less firm with its proposal in this area, partly owing to uncertainty about the extent to which wireless compatibility would be a function of subscriber equipment versus network infrastructure and features. Acknowledging that wireless compatibility, at least with respect to cellular telephony, is likely to proceed on a network implementation basis in the near term, the parties to the Consensus Agreement agree to work on methods and language for consumer education that would not depend on equipment labelling.<sup>231</sup>

110. In their comments regarding the Consensus Agreement, BellSouth and Nextel support the Consensus Agreement, while CTO contends that consumer education should be in addition to equipment labelling.<sup>232</sup>

#### **b. Discussion**

111. It appears from the Consensus Agreement comments that E911 will generally be implemented by network-based technology, rather than by modification of handsets. Therefore, we find that the proposals in the *Notice* for equipment requirements, approval, and labelling, which were based on the possibility that handsets might have to be modified, are not presently necessary for the implementation of E911 and that any labelling carried out pursuant to our requirements might in fact be confusing to customers. Consequently, we will not implement such requirements, but instead will require the parties to work on alternative methods of customer education so that they will be available prior to the implementation of E911 service.

112. Education will be an extremely important element in consumers' understanding both the capabilities and limitations of wireless E911 services as well as the differences between the wireless and wireline systems. Consumers should be informed how to place a 911 call, and under what circumstances a 911 call will not be completed. Among other

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<sup>229</sup> See, e.g., AT&T Comments at 40; CTIA Comments at 22; Motorola Comments at 26; Nextel Comments at 7-8; PCIA Comments at 25-26; SBC Comments at 23-26; CMT Comments at 10.

<sup>230</sup> TX- ACSEC Reply Comments at 6.

<sup>231</sup> Consensus Agreement at 5.

<sup>232</sup> BellSouth Comments at 11; Nextel Comments at 7-8; CTO Comments at 3-4.

things, consumers should also be informed of their ability to reprogram their handsets to enable them to use either carrier in a cellular area, as well as the charges that could result from such reprogramming. In the Further Notice, we seek comment regarding the role of consumer education in improving the effectiveness of wireless 911 services. In particular, we seek comment regarding possible requirements for covered carriers to engage in consumer education or labelling with respect to specific areas of potential consumer confusion.

### C. Specific E911 Technical and Other Issues

#### 1. Call Priority

##### a. Background and Pleadings

113. In the *Notice*, we sought comment on our proposal to require that, one year after the Order, originating 911 calls must be assigned priority over non-emergency service calls. We explained that this priority would be assigned at the handset and would place the 911 call at the beginning of any queue for calls waiting to be placed in the mobile radio network. We asked commenters to address whether this capability would require any major equipment modifications or whether existing systems currently have this capability. Commenters were also requested to discuss the technical feasibility and cost of establishing priority for 911 calls in new and existing mobile radio networks.<sup>233</sup>

114. Commenters generally agreed that 911 call priority is an important element of wireless access to E911 service.<sup>234</sup> However, commenters expressed diverse views on the issue of whether the proposed one year implementation date is achievable and whether the assignment of priority at the handset is appropriate. While some commenters supported our proposal without objection,<sup>235</sup> most commenters differed on the implementation of this feature. Several cellular handset manufacturers and service providers opposed the proposal that priority should be assigned from the handset.<sup>236</sup>

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<sup>233</sup> *Notice*, 9 FCC Rcd at 6178 (para. 44).

<sup>234</sup> *See, e.g.*, APCO Comments at 39; TX-ACSEC Comments at 10; PCIA Comments at 11; Motorola Comments at 22-23; APC Comments at 3; CMT Comments at 3-4; Westinghouse Comments at 5; ICSAR Comments at 5.

<sup>235</sup> *See, e.g.*, APCO Comments at 39-40; CMT Comments at 3-4; Westinghouse Comments at 5; ICSAR Comments at 5.

<sup>236</sup> *See, e.g.*, Nortel Reply at 12-13; AT&T Comments at 26; BellSouth Comments at 19; Ericsson Comments at 4; PCIA Comments at 9; SBC Comments at 10; NYNEX Comments at 12; Pacific

115. Commenters also contended that implementation of a priority system will require longer than a year because of the need for network equipment upgrades.<sup>237</sup> Some commenters proposed alternative timetables for development of the call priority feature.<sup>238</sup> Other commenters suggested that the Commission should defer this issue to an industry committee.<sup>239</sup> Similarly, some commenters contended that the Commission should urge industry bodies to continue their work on developing a reasonable and effective call prioritization scheme for wireless services, because coordination among industry experts and the LECs and PSAPs is required to investigate various priority problems, such as call queuing and call flow control (throttling). PCIA, for example, noted that mobile networks currently are incapable of either prioritization or queuing calls.<sup>240</sup> It further argued that, even assuming that call queuing and call priority were both fully implemented, there remains the problem of throttling. For example, numerous mobile customers would simultaneously report an emergency situation via 911. All of these calls would jump to the head of the calling queue, thereby overwhelming both the LEC and the PSAP. In the meantime, another 911 call from a totally different area might be squeezed out. Therefore, the parties contended that the network should recognize this case and insert the new call into the queue in a higher priority position than the existing calls.<sup>241</sup>

116. Some commenters expressed concern that absolute call priority for 911 calls may not be appropriate and even counter-productive, considering certain policy issues.<sup>242</sup> For example, APC contended that call prioritization and the effect on carrier liability is an

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Telesis Comments at 4.

<sup>237</sup> See, e.g., PCIA Comments at 11; AT&T Comments at 26-27; Bell Atlantic Comments at 9-11; CTIA Comments at 13-14; Motorola Comments at 23; Nortel Comments at 54-55.

<sup>238</sup> See, e.g., Motorola Comments at 22-23 (suggesting that a reasonable time frame is no sooner than 2 years after the Order); Ericsson Comments at 4-5 (arguing that a three year time frame is a more realistic assessment of the time necessary to accomplish the goal.).

<sup>239</sup> See, e.g., CTIA Comments at 13-14; Southern Comments at 7; AT&T Comments at 27; GTE Comments at 14-15.

<sup>240</sup> See, e.g., PCIA Comments at 9; CTIA Comments at 13.

<sup>241</sup> See, e.g., PCIA Comments at 9-11; APC Comments at 3-4.

<sup>242</sup> See, e.g., NCS Comments at 3-5; ALLTEL Comments at 2; AT&T Comments at 26; CTIA Comments at 13-14; PCIA Comments at 9-11; Century Reply Comments at 8.

important issue that requires Commission awareness.<sup>243</sup> Other commenters urged that the Commission should consider the impact of 911 call priority upon national security and emergency preparedness (NS/EP) calls during disasters, suggesting a relative priority scheme needs to be devised rather than an absolute priority for 911 calls.<sup>244</sup> The parties also noted that the Cellular Priority Access Advisory Committee, composed of government representatives, manufacturers and service providers, is currently undertaking an effort to address implementation of prioritization.<sup>245</sup> Therefore, the parties urged the Commission to withhold any final decision on the 911 call priority issues, specifically the relative priority assignment issue, until the Advisory Committee resolves the issues involving NS/EP calls.<sup>246</sup> The Consensus Agreement does not address the issue of call priority.

#### b. Discussion

117. As recognized in the *Notice*, we believe that call priority for wireless 911 calls is an important aspect of promoting public safety. The comments on the issue of call priority generally agree that call priority should be established for wireless 911 calls. We recognize, however, that the technology for call priority is complex. For example, commenters claim that mobile networks are currently incapable of prioritizing or queuing calls.<sup>247</sup> Commenters also describe the difficulty of determining whether 911 calls should have priority over other non-emergency calls such as calls to a suicide hotline.<sup>248</sup> Further, some commenters argue that priority should not be given to 911 calls which are duplicate reports of the same accident.<sup>249</sup>

118. As pointed out by the Secretary of Defense, there are ongoing discussions by the Cellular Priority Access Advisory Committee, composed of industry and Federal and state

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<sup>243</sup> APC Comments at 4.

<sup>244</sup> See, e.g., Motorola Comments at 23-24; NCS Comments at 7-8; Nortel Reply Comments at 12-13.

<sup>245</sup> See, e.g., NCS Comments at 7-8; Nortel Comments at 12-13.

<sup>246</sup> See, e.g., NCS Comments at 7-8; Motorola Comments at 24; Nortel Reply Comments at 12-13; Ericsson Comments at 4-5.

<sup>247</sup> See, e.g., PCIA Comments at 9; Ericsson Comments at 4-5; Northern Telecom Reply Comments at 12-13.

<sup>248</sup> See, e.g., PCIA Comments at 10; Century Reply Comments at 8.

<sup>249</sup> See, e.g., PCIA Comments at 10; CTIA Comments at 13-14; APC Comments at 4.

government representatives under the NCS, to establish a uniform nationwide method of providing access for mobile subscribers.<sup>250</sup> On October 12, 1995, the NCS filed a Petition for Rulemaking, requesting the Commission to adopt rules to provide priority access to cellular spectrum for National Security/Emergency Preparedness (NS/EP) responsiveness. Specifically, the NCS requested that the Commission establish the Cellular Priority Access Service (CPAS). The Petition proposes that authorized NS/EP users would be permitted to obtain access to cellular radio channels ahead of non-NS/EP users when cellular network congestion is blocking NS/EP call attempts. In order to obtain priority access, the authorized user would dial a feature code. CPAS calls would not preempt calls in progress.<sup>251</sup>

119. In view of the complexity of the issues as pointed out by the commenters and in view of the possibility of interference with the Secretary of Defense's efforts to develop priority standards for national security and emergency preparedness, we shall not develop E911 call priority standards at this time. We encourage the wireless industry and public safety organizations to continue working to resolve the technical and other issues associated with 911 call priority, and its relationship to national security and emergency preparedness needs. We will revisit the issue of call priority for wireless E911 in conjunction with the call priority issues raised by the NCS Petition for Rulemaking with respect to priority access.

## 2. Grade of Service

### a. Background and Pleadings

120. The term "grade of service" refers to the percentage of calls between the mobile transmitter and the PSAP that are blocked either within the radio or the wireline network. The interconnection of a mobile radio transmitter call with a PSAP attendant may involve several interconnecting networks, including mobile radio links and the wireline public switched telephone network (PSTN). In the *Notice*, we proposed that standards bodies should investigate technical solutions or other strategies to ensure minimal blocking of 911 calls from mobile radio transmitters. Recognizing that any overall grade of service objective will require a cooperative effort between the initiating, interconnecting, and terminating systems, we tentatively concluded that Federal standards are not warranted at this time. We sought comment on this assessment and requested that commenters advocating Federal standards

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<sup>250</sup> NCS Comments at 7-8.

<sup>251</sup> Public Notice, Commission Seeks Comment on Petition for Rulemaking Filed by National Communications System, WT Docket No. 96-86, DA 96-604, April 18, 1996.

should describe how grade of service would be defined, and discuss any jurisdictional implications of imposing such standards.<sup>252</sup>

121. Commenters representing the wireless industry generally supported our initial view that Federal grade of service standards need not be promulgated at this time for various reasons.<sup>253</sup> Some commenters asserted that grades of service of wireline 911 networks differ from jurisdiction to jurisdiction.<sup>254</sup> Several commenters contended that any grade of service objective requires a cooperative effort between responsible service providers and users.<sup>255</sup> Other parties argued that the competitive market will provide a grade of service standard which any wireless service provider must meet.<sup>256</sup>

122. APCO and other public safety groups, on the other hand, argued that the Commission should adopt Federal grade of service standards.<sup>257</sup> These commenters contended that a wireless 911 caller reasonably expects the same grade of service that is expected from a wireline phone.<sup>258</sup> Thus, the parties suggested that a grade of service of one busy signal per one hundred 911 call attempts in the average busy hour should be adopted as a Federal standard, noting that this requirement is compatible with most state and local grade-of-service requirements for E911 access.<sup>259</sup> Some commenters requested that if grade of service is addressed in the Report and Order, the Commission should simply require that wireless 911 grade of service be equivalent to the wireline grade of service being provided within the same locale.<sup>260</sup> Other commenters urged the Commission to adopt system requirements for

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<sup>252</sup> Notice, 9 FCC Rcd at 6178 (paras. 42-43).

<sup>253</sup> PCIA Comments at 8-9; APC Comments at 3; RCA Comments at 9-10; SBC Comments at 9-10; CMT Comments at 3; Pertech Comments at 6.

<sup>254</sup> Pertech Comments at 6.

<sup>255</sup> PCIA Comments at 8-9; APC Comments at 3; RCA Comments at 9-10.

<sup>256</sup> SBC Comments at 9-10 (claiming that competition in the wireless market demands that the amount of blocked calls be as minimal as possible.).

<sup>257</sup> See APCO Comments at 39; TX-ACSEC Comments at 9; ICSAR Comments at 5.

<sup>258</sup> See, e.g., TX-ACSEC Comments at 9.

<sup>259</sup> APCO Comments at 39; See TX-ACSEC Comments at 9 (arguing that a P. 01 grade of service should be required for the mobile radio network portion of the cell.).

<sup>260</sup> Pertech Comments at 6.

functions like total transmission time and database availability.<sup>261</sup> None of the parties advocating Federal standards discussed the jurisdictional implication of imposing such standards.

123. In its comments regarding the Consensus Agreement, US West supports a procedure to resolve implementation issues at the local level in the first instance, while Motorola urges that any standards for wireless location technologies be compatible with all radio frequency technologies.<sup>262</sup>

#### **b. Discussion**

124. As discussed in a previous Section,<sup>263</sup> we agree with the parties that contend that Federal standards regarding grade of service for 911 service are not warranted at this time. The nature of the issue requires a level of expertise and consultation among the parties that can best be achieved through discussions and proceedings of standard-setting bodies, which the parties indicate are already in progress. In addition, requiring a grade of service for 911 calls which is superior to the current grade of service may require the implementation of special technologies, especially call priority. Therefore, we conclude that the interested parties should develop standards by mutual agreement or by submission to standard-setting bodies.

125. We intend, however, to track the industry's progress in achieving a grade of service standard for 911 service, and will provide whatever assistance our resources permit. In that connection, we shall require the signatories to the Consensus Agreement, PCIA, and Alliance to furnish the Commission with reports detailing the status of the discussions involving the grade of service, what decisions have been made by standard bodies or through mutual agreement among the interested parties, and what can be done to expedite the resolution of the issues. Such reports must be filed not later than 30 days following the end of each annual period after the effective date of the rules adopted in this proceeding, and if sufficient progress has not been made, we shall take appropriate action. With the wireless systems operating in different technical, operational, and jurisdictional environments, we believe details on grade of service need further review. This careful review can best be accomplished through these consultative processes, with significant Commission input, rather than by a Commission decision based on a paper record.

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<sup>261</sup> ICSAR Comments at 5.

<sup>262</sup> US West (CA) Comments at 8-9; Motorola (CA) Comments at 7-8.

<sup>263</sup> See Section IV.B.1.b.(4), *supra*.

### 3. Common Channel Signalling

#### a. Background and Pleadings

126. In the *Notice*, we noted the conclusion of the Joint Paper that radio transmissions of 911 calls eventually should be capable of providing the same or similar information and features currently available from wireline calls over E911 systems. In addition to the ALI and call back information discussed above, we proposed that some or all of the following information should be furnished to the PSAP: (1) call back number and the mobile transmitter subscriber's name; (2) class of service, *e.g.*, residence, business, etc.; (3) base station provider's name and telephone number; (4) priority of the caller, *e.g.*, hospital, school, etc.; (5) routing information to direct the call to the proper PSAP (primary and secondary PSAP identifiers); and (6) transfer numbers, *i.e.*, separate numbers to allow transfer of calls to police, fire and ambulance services. In the *Notice*, we requested comment on the feasibility of these features, which would permit radio transmission systems to interface fully with wireline E911 systems. To facilitate full interface between the wireless and wireline networks, we proposed and solicited comment on the requirement to implement common channel signalling (CCS) capabilities within three years after the Order.<sup>264</sup> Commenters were asked to discuss whether the reliability of 911 technology will be hampered if 911 services are transferred to CCS, and how the issue of CCS for 911 services would affect the survivability of 911 SS7-based calls during a CCS outage.<sup>265</sup>

127. Commenters expressed diverse views on the proposal to require CCS capabilities within three years. Some commenters supported the proposed rule and timetable, arguing that current features and standards that exist today for SS7 networks are applicable to E911 service.<sup>266</sup> APCO, for example, argued that the use of an expanded SS7 would provide a more reliable method for processing E911 calls than waiting for CCS.<sup>267</sup> At the same time, the parties recognized that additional new standards will need to be developed to define data

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<sup>264</sup> CCS is a network architecture supported by numerous protocols. SS7, or Signalling System 7, is the primary signalling protocol used by the wireline network.

<sup>265</sup> *Notice*, 9 FCC Rcd at 6179-80 (para. 53). We indicated that the Network Reliability Council has recommended that, before 911 calls are handled by SS7, standards bodies must determine whether additional standards are needed for the SS7 protocol. *Network Reliability: A Report to the Nation*, Network Reliability Council, Federal Communications Comm'n, June 1993, Section F, at 16.

<sup>266</sup> See, *e.g.*, APCO Comments at 45-49; TX-ACSEC Comments at 11; Coast Guard Comments at 5-6.

<sup>267</sup> APCO Comments at 48.

elements and processes for handling and transporting E911 calls through the network.<sup>268</sup> Other commenters contended that requiring CCS capabilities within three years is inappropriate because of the cost involved and the fact the standards have not been set. SBC, for example, contended that the cost of implementing CCS capabilities to perform the wireline type functions for wireless will be substantial and urged the Commission to refer this issue to industry standards committees and industry forums.<sup>269</sup>

128. Many commenters noted that the wireless industry currently lags behind the wireline industry in implementation of CCS and does not necessarily employ consistent protocols. PCIA and Motorola, for example, noted that while SS7 is prevalent on wireline networks, wireless networks often use different protocols, with some using SS7 but most using IS-41. Motorola notes further that PCS networks are expected to deploy SS7.<sup>270</sup> Because of the need for coordination among industry members in the implementation of the common channel signalling capabilities, some commenters recommended that the Commission not tie the implementation to the effective date of these rules, but rather to the joint development of a universal CCS or interworking platform.<sup>271</sup>

129. Commenters also expressed concern over the proposal that wireless carriers would be required to provide the same or similar information and features that are currently provided by wireline carriers to E911 systems. Many commenters contended that certain information about the subscriber would be unnecessary and may be counterproductive in wireless 911 situations.<sup>272</sup> SBC, for example, pointed out that the overwhelming majority (as high as 97 percent) of wireless 911 calls are placed by Good Samaritans where the caller is a stranger to the incident and is not necessarily waiting at the site of the incident.<sup>273</sup> In such cases, commenters contended that information about the subscriber is not critical and may discourage such Good Samaritan calls from people who want to assist in an emergency but do not want to "get involved" personally.<sup>274</sup>

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<sup>268</sup> See, e.g., APCO Comments at 49; TX-ACSEC Comments at 11.

<sup>269</sup> SBC Comments at 21-22.

<sup>270</sup> PCIA Comments at 22-23; Motorola (CA) Comments at 4..

<sup>271</sup> See, e.g., PCIA Comments at 23; GTE Comments at 27; AT&T Comments at 37; CTIA Comments at 14-15; Nextel Comments at 5; SBC Comments at 22.

<sup>272</sup> See, e.g., SBC Comments at 21-22; PCIA Comments at 23; CTIA Comments at 14-15.

<sup>273</sup> SBC Comments at 21.

<sup>274</sup> *Id.*

130. Other commenters contended that this issue requires substantial study and cannot be rationally addressed without extensive coordination and consideration by the relevant parties.<sup>275</sup> For example, CTIA contended that enormous costs would be incurred by both PSAPs and carriers to achieve the necessary modifications and upgrade, because routing information as well as transfer number data available on the wireline-side are based upon the street address of the originating telephone, which is of very limited utility in a mobile context.<sup>276</sup> Thus, the parties contended that the Commission should rely on the JEM process to determine what information should be provided to the PSAP and how that information should be transmitted, given differing implementation of signalling protocols in landline and wireless networks.<sup>277</sup> PCIA, for example, urged that the Commission allow the wireless industry and the 911 community to agree on the scope of information that ultimately will be provided, rather than specifying the required information in its rules at this stage.<sup>278</sup> Some commenters also contend that CMRS providers should not be required to implement the new features until PSAP operators are equipped to handle the information that would be transmitted by the CMRS provider.<sup>279</sup>

#### b. Discussion

131. In their comments, the wireless service providers and associations contend that common channel signalling should be addressed by the parties rather than determined by the Commission. For example, they point out that common channel signalling will require cooperation by wireless carriers, LECs and PSAPs.<sup>280</sup> As discussed in a previous Section,<sup>281</sup> we agree that issues involving the interfaces and signalling systems to be deployed should, for the present, be resolved by the interested parties through mutual agreement or by submission to standards bodies. We note that under our Phase I E911 implementation plan, covered

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<sup>275</sup> See, e.g., PCIA Comments at 23; CTIA Comments at 14-15; Nextel Comments at 5; Southern Comments at 8; Springwicks Comments at 12.

<sup>276</sup> CTIA Comments at 14-15.

<sup>277</sup> See, e.g., PCIA Comments at 23; CTIA Comments at 14-15 (arguing that referral to an industry forum for further study is appropriate.); CMT Comments at 9 (urging the Commission to defer implementing this proposal pending completion of analysis by the industry board.).

<sup>278</sup> See, e.g., PCIA Comments at 23.

<sup>279</sup> SBMS Comments at 8.

<sup>280</sup> See, e.g., PCIA Comments at 22-23; Nextel Comments at 5.

<sup>281</sup> See Section IV.B.1.b.(4), *supra*.

carriers must transmit a caller's ANI, which provides the PSAP with call back capability. As we explained above, transmission of ANI does not require implementation of SS7, but standards setting bodies are scheduled to consider SS7 protocols for ANI in the very near future. We also note that under our rules requiring that location information be provided to the PSAP within five years, it will be necessary for the parties to develop whatever signalling standards are necessary to transmit that data. Once the parties have determined what signalling standards will be adopted, we shall consider whether further information should be furnished to the PSAP.

132. We intend, however, to track the industry's progress of common channel signalling, and will provide whatever assistance our resources permit. In that connection, we shall require each of the signatories to the Consensus Agreement, PCIA, and Alliance to furnish the Commission with reports detailing the status of the issues involving the interfaces and signalling systems to be deployed for E911 services, what decisions have been made by standard bodies or through mutual agreement among the interested parties, and what can be done to expedite the resolution of the issues. Such reports must be filed not later than 30 days following the end of each annual period after the effective date of this Order of the rules adopted in this proceeding, and if sufficient progress has not been made, we shall take appropriate action.

## V. FURTHER NOTICE OF PROPOSED RULEMAKING

### A. Background

133. As stated in the previous Sections, the 911 and E911 rules we have adopted in the Report and Order are a first step toward the goal of meeting the Nation's public safety communications needs by ensuring that 911 and E911 services are as widely available as possible and that these services take advantage of advances in communications technology. We have concluded, however, that we also should immediately begin the task of exploring the need for further action to spur improvements in the features and delivery of these services.

134. Some of the rules we have adopted in the Report and Order have a somewhat limited scope, in part because of insufficient information in the present record regarding the ability of wireless carriers to implement more stringent requirements within the short term. We believe that the next phase of this proceeding should seek to improve on this record, and should focus on the issue of whether the standards and requirements we are adopting today can be expanded. Specifically, we intend to examine whether requirements can be developed under which carriers will deliver more precise location information to PSAPs, and whether it will be possible to establish standards governing the speed at which such information must be delivered and the extent to which the information must be monitored and updated by the carrier to ensure its accuracy.

135. As we have often observed throughout this proceeding, one of the principal issues we have set out to resolve is the problem of locating the mobile caller in emergency situations. The next phase of our inquiry will continue our effort to establish standards for the efficient use of communications technology to improve the accuracy and reliability of this location information. We also intend to examine how consumers can be educated to know the capabilities as well as the limitations of wireless services when they are used to call 911. We expect that this rulemaking will result in 911 service which will enhance the health and safety of the Nation's citizens.

## **B. Discussion**

### **1. Location Information Technology**

136. One of our objectives is to ensure that wireless E911 continues to benefit from improvements in location information technology, while also striving to make sure that covered carriers' development and application of new technologies for E911 services also contribute to the overall quality of service and range of services that carriers provide to all their customers. Such an objective is consistent with our responsibility under the Communications Act to provide for the management of the spectrum in a manner that serves national public safety needs. Based on the present record, we have adopted requirements under which carriers must supply to PSAPs, not later than five years after the effective date of the rules adopted in the Report and Order, information that locates a wireless 911 caller within a radius of 125 meters, using longitude and latitude data, and that provides this degree of accuracy for 67 percent of the 911 calls processed.

137. We believe it is advisable to begin considering at this time whether requirements establishing a higher degree of ALI accuracy should be adopted before the end of the five-year Phase II period, to take effect immediately after the close of that five-year period. Establishing such requirements now, rather than at a later time closer to the end of the five-year period, will act as an incentive to spur continuing efforts to develop improved location information technologies. In addition, triggering debate and discussion in the industry and the public safety community at this juncture through initiation of this further rulemaking proceeding will serve to ensure a full and detailed consideration of the range of location information technologies that are likely to be feasible.

138. Based upon these considerations, we propose that covered carriers should be required to achieve the capabilities necessary to provide to PSAPs, after the initial five-year period, information that locates a wireless 911 caller within a radius of 40 feet, as recommended as a long term goal in the JEM Report,<sup>282</sup> using longitude, latitude, and vertical

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<sup>282</sup> JEM Report at 7-8.

location data, and that provides this degree of accuracy (for longitudinal and latitudinal data and for vertical location data) for 90 percent of the 911 calls processed. We also propose that the described requirements should apply only if (1) a covered carrier receives a request for E911 services from the administrator of a PSAP that is capable of receiving and utilizing the data elements associated with the services; and (2) a mechanism for the recovery of costs relating to the provision of such services is in place.

139. We propose to adopt a standard of 90 percent accuracy, within a radius of 40 feet, at the end of the initial five-year period, based on our estimate that such a standard will be feasible at that time. We seek comment on the reasonableness of this estimate. Specifically, we ask commenters to assess the current state of relevant technology, and to evaluate assumptions that can be made with respect to the evolution of this technology during the next five years. In that regard, we note that one manufacturer, KSI, claims that it is already possible to implement location technology that can identify a 911 caller's location with a reliability of 90 percent.<sup>283</sup>

140. Commenters arguing that 90 percent accuracy is not realistic should suggest alternative accuracy standards that would improve the 67 percent standard that we have adopted in the Report and Order. We also seek further comment regarding our proposal to establish standards for location information that require location within a radius of 40 feet. Commenters have suggested that altitude information may prove most beneficial in urban areas.<sup>284</sup> Therefore, we seek comment regarding whether it would be appropriate to limit a requirement for providing this type of location information to certain geographic areas. Alternatively, we seek comment whether it would be appropriate to give local PSAPs the option of obtaining location information in three dimensions. We also seek comment on whether other requirements are preferable to those we are proposing, or whether there are other methods of achieving improved accuracy without the setting of any specific requirements. Given the concerns we have noted regarding the relationship between the development and application of ALI technology for E911 services and the overall quality of service and range of services that covered carriers provide to all their customers, we also ask commenters to address the relative costs and benefits associated with imposition of the specific requirements we are proposing.

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<sup>283</sup> KSI (CA) Reply Comments at 5.

<sup>284</sup> See, e.g., APCO Comments at 42 (arguing that the Commission should adopt an ultimate location accuracy requirement of 10 meters with a 95 percent confidence factor, applying to both horizontal and vertical accuracy); TX-ACSEC Comments at 10 (suggesting that a 10 meter radius in three dimensions would be a better goal, because it would narrow the location to within three floors in a building).

141. To the extent that a new technology would substantially advance the quality of E911 service to the public, we believe that the public interest is served by expediting the introduction of this technology in E911 networks. Specifically, we seek comment on the following issues: (1) What estimates can be made regarding the additional costs that would be incurred by carriers to upgrade ALI technology in order to achieve a higher percentage rate of reliability in determining the location of wireless 911 callers? (2) Similarly, what level of additional costs would be associated with upgrading location technology to include vertical location data? (3) Will these increased levels of cost be adequately accommodated by the state and local cost recovery mechanisms that will be established? (4) Will other benefits -- in addition to improvements in the delivery of 911 assistance -- be derived from these technological upgrades?

142. We also seek comment regarding the development of a minimum latency period to ensure that public safety personnel are informed of callers' locations in time to act in the emergencies that they confront. In addition, commenters should address whether updating of location information throughout the duration of a 911 call may be technically feasible and useful. KSI's proposal of a latency period of 5 seconds, and an updating of the location information every 10 seconds, may serve as a useful starting point. We therefore request comment on these proposals, including their use and feasibility, and any other alternative proposals on these issues. We note that the Commission has not chosen a specific technology for providing ALI, and we therefore seek comment regarding the impact of latency or updating requirements on various technologies under development. We request that commenters addressing these issues provide supporting engineering analyses.

143. Further, in addition to proposing specific requirements to be implemented within a reasonable time after the five-year period, we wish to ensure that sufficient mechanisms are in place to give covered carriers proper incentives to implement state-of-the-art communications technology, as that technology becomes available, in connection with the provision of E911 services. We therefore request comment regarding what types of monitoring mechanism the Commission should adopt to ensure that carriers are developing and deploying state-of-the-art technology. One method under which the Commission could monitor the development, application, and deployment of state-of-the-art technology, as well as the effects of this technology on the quality of wireless E911 service, would be to establish reporting requirements under which covered carriers would periodically inform the Commission of developments relevant to the provision of E911 services. When new technology is reported to be available, we could require that it be deployed if the benefit exceeds the cost, unless the limited availability of the technology makes the deployment impractical. We seek comment regarding whether such reporting requirements and the requirement for deployment of new technology should be adopted. We also recognize that there may be other ways to achieve the same goals while also minimizing administrative

burdens faced by covered carriers or the Commission. Commenters are invited to discuss any other possible ways to monitor the quality of wireless 911 service.

## 2. Access to 911 Service via Multiple Mobile Systems

### a. Technical Issues

144. In its Petition, Alliance raises a number of technical issues concerning interoperability between cellular systems and the problems that could be created for users of these systems trying to make 911 calls. Specifically, Alliance indicates that the service area of all wireless systems contains "blank spots," that is, areas where a system's radio signal is very weak or non-existent. Alliance's solution to this problem is to require 911 calls to be sent to the cellular system with the strongest control channel signal.<sup>285</sup> While we believe there is a broader issue beyond that raised by Alliance, as discussed below, we seek comment on Alliance's specific proposal, including the tests contained in its Reply Comments to the Consensus Agreement, especially from a technical feasibility standpoint. If a commenter believes that Alliance's proposal is technically infeasible, it should provide its reasons in detail, with supporting engineering analyses.

145. The issue raised by Alliance, however, is not limited to cellular systems, and could be extended to other mobile services, such as broadband PCS, that will be required to provide 911 access. The generic issue underlying Alliance's concerns is not only one of accessing the *best* system, but one of accessing *any* system, to service a wireless 911 call. Such a call should not be limited to a specific service provider, system, or technology. Rather, ideally, a 911 call should be handled by whatever wireless system is available in the area of need and, if there are multiple systems available, by the one that will provide the quickest and most reliable and accurate response.

146. Common air interface standards currently make cellular systems relatively compatible for 911 calls on all cellular telephones.<sup>286</sup> As cellular systems evolve to digital

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<sup>285</sup> Alliance Petition at 3. We recognize the significance of Alliance's concern regarding the existence of "blank spots" with respect to a cellular system's radio signal. In support of its contention, Alliance submits tests which purport to show that significant portions of major cities either cannot be reached via the signal of one carrier or another, or can only be reached with a poor signal. Thus, Alliance contends, a requirement that a 911 cellular call be connected to the cellular carrier with the strongest signal in the geographic area involved may be the only means to ensure that a 911 call can be successfully made.

<sup>286</sup> "Compatibility" means that any cellular mobile telephone is able to place and receive calls in any cellular system; and conversely, all systems are able to place and receive calls for any mobile

technology, however, this may no longer hold true. Furthermore, common standards do not exist for broadband PCS systems or between other mobile service systems.<sup>287</sup> Sending a 911 call to the system with the strongest signal assumes that all systems are capable of handling every call. As many commenters point out, a carrier with the best signal in the area may use a different air interface than that used by the handset.<sup>288</sup> Commenters also indicate that it may not be currently possible to transfer a call to another mobile carrier because the systems use different protocols.<sup>289</sup>

147. In order to ensure the broad availability of basic 911 service for wireless customers, we have decided to seek further comment on ways to enable such mobile users to complete a 911 call without regard to the availability (in the geographic area in which they seek to place a 911 call) of the system or technology utilized by their wireless service. To the extent that any mobile service is available in an area, we seek comment regarding whether it would be desirable to establish arrangements and procedures under which all wireless 911 calls could be handled by the available service. This issue goes well beyond Alliance's concern and proposed solution regarding coverage gaps in cellular service. We recognize, however, that many wireless service providers claim that Alliance's proposal is technically infeasible and without merit. These same parties may likewise have concerns with the broader direction that we are pursuing here. We emphasize that the Commission has chosen not to establish a common technical air interface for broadband PCS, nor has it chosen technical standards for digital cellular service. We have decided that the marketplace should determine which digital protocols will survive, and we do not intend to reach different conclusions in this proceeding.

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telephone. See Amendment of Parts 2 and 22 of the Commission's Rules to Permit Liberalization of Technology and Auxiliary Service Offerings in the Domestic Public Cellular Radio Telecommunications Service, GN Docket No. 87-390, Report and Order, 3 FCC Rcd 7033, 7038 (para. 36) (1988).

<sup>287</sup> See, e.g., Amendment of the Commission's Rules to Establish New Personal Communications Services, GN Docket No. 90-314, Memorandum Opinion and Order, 9 FCC Rcd 4957, 5021-22 (paras. 162, 164) (1994).

<sup>288</sup> According to AT&T, if phones are automatically programmed to search out the strongest signal, as Alliance proposes, but the carrier possessing that signal is using an incompatible air interface, the subscriber would be unable to complete the call. AT&T Comments on Alliance Petition at 6-7.

<sup>289</sup> Initial PCS technology will be digital as opposed to cellular technology, which is evolving from analog to digital. Cellular carriers currently use three different air interfaces -- the analog AMPS standard, and digital TDMA and CDMA protocols. See, e.g., AT&T Comments on Alliance Petition at 7.

148. Nevertheless, we seek comment regarding how to achieve the goal of enabling wireless 911 service to be available and accessible wherever a qualifying mobile system is present. Commenters should address issues framed by the mobile services environment as a whole, but should also offer partial solutions, as appropriate, e.g., if the goal can be achieved for cellular but not between and among other mobile systems. Options to explore should consider both equipment and system capabilities. For example, to what extent can dual-mode mobile units enable operation with multiple systems, such as switching between cellular and PCS systems? Or, can a common protocol be developed and incorporated into every mobile system to overcome compatibility or interoperability problems? Currently, cellular handsets are preset to seek the strongest signal from the cellular carrier to which the user subscribes. While the user can manually change this default setting to access the strongest signal from either of two cellular carriers regardless of subscription, it would be useful to apply such feature in all cases for 911 calls without disrupting handling and roaming considerations with respect to other calls. To accomplish this, manufacturers of cellular handsets would have to modify the default settings of these units. The handsets could then automatically route 911 calls to the strongest signal provided by a cellular carrier while all other calls would be handled as determined by the users. We request commenters to address whether such a requirement should be imposed on handset manufacturers and, if so, whether it should be implemented by the Commission in the equipment authorization process.

#### **b. 911 Availability and Consumer Education**

149. In this Order, one of our goals is to ensure that as many 911 calls are processed as feasible. Thus, we have determined that, within one-year from the effective date of the rules which are adopted in this Order, covered carriers would be required to transmit to PSAPs 911 calls from wireless handsets that do not transmit a code identification where requested by the PSAP Administrator. The basis for the restriction is that public safety organizations are in the best position to determine whether acceptance of calls from handsets without a code identification helps or hinders their efforts to preserve and promote health and safety in their communities. However, we are concerned that a system under which customers in the same geographic area may or may not be able to complete non-code identification 911 calls depending on the practices of the PSAPs serving that area may generate unnecessary customer confusion. We therefore seek comment on whether, within a reasonable time after the one year period, covered carriers should be obligated to transmit all such calls even without a request from the PSAP.

150. We acknowledge the possibility that solutions may not be readily developed for improving access to 911 services, such that 911 access may still be limited. In light of these circumstances, we request comment regarding how users can be informed or made aware that not all wireless 911 calls may be processed by carriers and delivered to PSAPs for monitoring and response. One purpose of such a customer education program would be to address a

concern that consumers currently may not have a sufficient understanding of technological limitations that can impede transmission of wireless 911 calls and the delivery of emergency assistance. We believe that covered carriers have an obligation to inform their customers regarding the scope of their services, including any such technical limitations of current wireless services in providing access to basic and E911 services, so that customers will be able to determine rationally and accurately the scope of their options in accessing 911 services from mobile handsets, and available alternatives.

151. For example, current cellular handsets are capable of accessing both cellular carriers within a service area. In some cases, however, cellular subscribers have their mobile phones set to restrict access to the alternative carrier, in order to avoid potentially costly roaming charges. It may be useful, however, to educate consumers regarding the potential disadvantage of setting their handsets in such a manner. In other words, a cellular subscriber might want to have his or her handset set to receive signals of both cellular carriers in order to limit the possibility of being in a "dead spot" when trying to call 911. To the extent 911 access to multiple systems might be accomplished by users programming their mobile units, we seek comment regarding whether handset labelling or instructions should be provided to users about this possibility as well as the need for the customer to be aware of the air time charges that might be incurred.

152. Further, we believe that public education regarding limitations relating to the scope of 911 service, not only in this context but also for the location capability discussed in previous Sections, could be valuable so that customers can be informed of the capabilities and limitations of wireless 911 systems. To this end, we seek comment regarding the extent equipment labelling or detailed service descriptions may be necessary or appropriate to provide this education. We also seek comment regarding whether mobile unit equipment manufacturers should be required to prepare, for inclusion in the packaging of their consumer products, consumer education materials addressing the capabilities and limitations of the mobile units in connection with the ability of the user to make 911 calls. We also seek comment regarding the role that local public safety agencies can play in disseminating information regarding the capabilities and limitations of wireless 911 service.

153. While we are seeking comment regarding actions that could be taken to enable all wireless 911 calls be completed, we recognize that there are difficulties in attaining this objective. The emerging environment of multiple mobile service providers and systems, and the Commission's inclination to provide reasonable flexibility for licensees to develop their services, may contribute to the situation. As noted above, the implementation of our baseline schedule depends in large part on the actions of state and local government authorities, and is therefore likely to result in significant variation in different jurisdictions. We must find ways, however, to make wireless 911 service as ubiquitous and transparent as possible to the using public. Taking such actions should not only improve 911 service but also promote a

more universal, dynamic, and competitive mobile radio industry. We therefore seek comment on solutions that would address this concern.

### **C. Initial Paperwork Reduction Act of 1995 Analysis**

154. This Further Notice of Proposed Rulemaking contains a proposed information collection. As part of its continuing effort to reduce paperwork burdens, we invite the general public and the Office of Management and Budget (OMB) to take this opportunity to comment on the information collections contained in this Further Notice, as required by the Paperwork Reduction Act of 1995, Pub. L. No. 104-13. Public and agency comments are due at the same time as other comments on this Further Notice; OMB comments are due 60 days from date of publication of this Further Notice in the Federal Register. Comments should address: (1) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (2) the accuracy of the Commission's burden estimates; (3) ways to enhance the quality, utility, and clarity of the information collected; and (4) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology.

### **D. Ex Parte**

155. The *Further Notice* is a non-restricted notice and comment rulemaking proceeding. *Ex Parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in the Commission's Rules. See 47 C.F.R. Sections 1.1201, 1.1203 and 1.1206(a).

### **E. Comment Period**

156. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§ 1.415 and 1.419, interested parties may file comments on or before August 26, 1996. Reply comments are due on or before September 10, 1996. To file formally in this proceeding, commenters must file an original and four copies of all comments, reply comments with the reference "CC Docket 94-102." If they wish each Commissioner to receive a personal copy of their comments, they must file an original plus nine copies. Filings should be sent to the Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. In addition to filing comments with the Secretary, a copy of any comments on the information collections contained herein should be submitted to Dorothy Conway, Federal Communications Commission, Room 234, 1919 M Street, N.W. Washington, D.C. 20554, or via the Internet to [dconway@fcc.gov](mailto:dconway@fcc.gov) and to Timothy Fain, OMB Desk Officer, 10236 NEOB, 725 - 17th Street, N.W. Washington, D.C. 20503 or via the