

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Revision of the Commission’s Rules)	CC Docket No. 94-102
To Ensure Compatibility with)	
Enhanced 911 Emergency Calling Systems)	
)	
E911 Compliance Deadlines for)	
Non-Nationwide Tier III CMRS Carriers)	

**Supplement to Arctic Slope Telephone Association Cooperative, Inc. Petition for Waiver
of Section 20.18(g) of the Commission’s Rules**

Arctic Slope Telephone Association Cooperative, Inc. (“ASTAC”), by its attorneys and pursuant to the *Stay Order* issued October 10, 2003 by the Federal Communications Commission (“FCC” or “Commission”),¹ hereby supplements its petition for a temporary waiver of Section 20.18(g) of the Commission’s rules filed in the above-captioned proceeding on August 28, 2003 (“*Waiver Petition*”). In the *Stay Order*, the Commission, *inter alia*, gave Tier III carriers, that like ASTAC had requested waivers from the Commission’s E911 Phase II handset deployment deadlines, additional time to supplement their existing waiver requests to provide additional documentation and/or other information to support their requested waivers. Specifically the Commission has requested “substantial evidence that the relief is as narrowly tailored as possible or that the petitioner has put in place a clear path to compliance.”² Although ASTAC believes its *Waiver Petition* demonstrated sufficient grounds for granting the limited relief sought, ASTAC is filing this Supplement to provide additional detail in support of its *Waiver Petition*.

¹ *In the matter of Revision of the Commission’s Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems E911 Compliance Deadlines for Non-Nationwide Tier III CMRS Carriers*, CC Docket No. 94-102, Order to Stay, FCC 03-241 (rel. October 10, 2003) (“*Stay Order*”).

² *Stay Order* at ¶ 17.

I. ASTAC HAS DEMONSTRATED A CLEAR PATH TO COMPLIANCE

In its *Waiver Petition*, ASTAC has demonstrated a clear path to compliance. ASTAC investigated the possibility of employing a network solution to achieve Phase II compliance but determined that it was not feasible given the geographic and meteorological difficulties inherent in providing service to the Arctic Slope. Specifically, numerous inquiries were made to several manufacturers regarding a network based solution to meet the E-911 Phase II requirement. Contacts were initiated with Global Locate and True Position. ASTAC determined from these conversations, discussions with peers and roaming partners, and information gathered at association meetings, that a network-based solution will not achieve the accuracy required. Because it has only approximately 1000 customers scattered across a service area larger than the entire State of Minnesota, ASTAC provides service throughout most of its coverage area with cells having the minimal measure of overlap needed to permit reliable cellular communications, but far from sufficient to permit the triangulation of a mobile subscriber's geographic position that a network-based E911 solution needs to achieve Section 20.18(h) accuracy. Accordingly, ASTAC determined that a handset-based solution was necessary to achieve Phase II compliance in its unique service area.

ASTAC presently operates an analog and time division multiple access ("TDMA") network for which no handset-based E911 location solutions are available.³ Accordingly, meeting the applicable benchmarks set forth in Section 20.18(g) of the Commission's rules requires ASTAC to migrate its TDMA network to an alternate digital technology. ASTAC has begun this process and has chosen to overlay its current network using a Global System for Mobile Communications ("GSM") air interface. ASTAC does not expect to complete the

³ Documentation confirming the unavailability of TDMA-based automatic location identification ("ALI")-capable handsets is found in Exhibit 1 hereto.

conversion until September, 2005, due to technical network and cost considerations inherent in serving the Arctic. As each segment of its system is cut over to GSM, ASTAC plans to offer ALI-capable handsets to its customers served by those cell sites, assuming, of course, that equipment vendors can deliver such handsets to ASTAC by that date.

ASTAC plans to deploy a Software Defined Radio (SDR) product manufactured by Vanu, Inc. for its GSM platform. The use of SDR technology provides a number of advantages for a small company like ASTAC that serves a low density, geographically dispersed, high cost environment like the Arctic Slope. SDR will allow ASTAC to realize bandwidth efficiencies that would not be possible with a hardware-based GSM product during the time period where both TDMA and GSM service will both be operational as part of the overlay. SDR also will minimize the cost of future upgrades as new technologies are developed. This represents a huge consideration for a company like ASTAC with limited resources and serving a vast region inside the Arctic Circle where the climate and conditions are harsh and brutal and maintenance and construction costs are well above the industry norm. The equipment that ASTAC is planning to deploy will also be upgradeable to support the CDMA interface by sometime in 2005. This will give ASTAC the ability to support both GSM and CDMA handsets and support roaming from either interface. This is extremely critical for a company, like ASTAC, that depends on roaming for approximately 70% of its revenue base.

After researching various GSM products, ASTAC began discussions with Vanu, Inc. in June of this year. In September, ASTAC met with Vanu representatives and provided them with technical details and system specifications to serve as the basis for a price quote for the overlay. ASTAC is currently waiting to receive the quote, which has been promised by year end. Meanwhile, ASTAC has diligently begun the preliminary tower preparation required for the

overlay.⁴ Such preparation includes structural strengthening and equipment rearrangement to support additional antennas on each tower site, and increasing available power supplies, heating and ventilation capabilities at each site. Because there are no roads, ASTAC was required to wait until two weeks ago, until after the Arctic tundra had frozen for the winter (thus allowing heavy equipment to be rolled out to remote tower sites) to begin this preliminary work.

Vanu, Inc. SDR field trials are currently in process and commercial systems are slated to become available during the second quarter of 2004, at which time ASTAC expects to have completed its site preparation work. Taking into account delivery cycles and climactic conditions, it is anticipated that ASTAC will be able to begin deployment of its GSM overlay during the 4th quarter of 2004 and complete the overlay by September 2005, as has been previously disclosed to the Commission.

II. THE RELIEF REQUESTED IS NARROWLY TAILORED

ASTAC's waiver request is narrowly tailored in that it seeks relief only until such time as it is able to complete its planned GSM overlay.⁵ Although ASTAC plans to sell and activate ALI-capable handsets before its network conversion is complete, the handsets will have severely limited use since they will be unable to fully function on ASTAC's TDMA network. Such handsets will not function at all in digital mode and will be relegated to operating on the analog portion of ASTAC's TDMA network. Selling digital handsets to customers before ASTAC

⁴ In its *Waiver Petition*, ASTAC indicated that it anticipated commencing such work in the first quarter, 2004. Accordingly, ASTAC is currently ahead of its projected schedule.

⁵ In its *Waiver Petition*, ASTAC requested that the deadlines for it to begin selling and activating handsets (and to begin providing Phase II data to PSAPs), and to ensure that 25 percent of the handsets sold and activated are ALI-capable, be extended to July 1, 2005; that the deadline for ensuring that 50 percent of the handsets sold and activated are ALI-capable be extended to October 1, 2005; and that the deadline for ensuring that 100 percent of the handsets sold and activated are ALI-capable be extended to December 31, 2005. ASTAC is not seeking a waiver of the ultimate December 31, 2005 deadline for achieving 95 percent penetration of ALI-capable handsets.

converts its entire network to GSM will also subject customers to spotty coverage and dropped calls. Thus, ASTAC anticipates that there may be difficulties in marketing such handsets prior to the time the system is fully cut over. Despite these uncertainties, ASTAC believes that the handset availability benchmarks it has proposed may be achievable. Accordingly, granting the relief sought by ASTAC will serve the public interest by supporting a seamless transition to Phase II functionality with minimal disruption to existing levels of service.

III. ASTAC’S DEPLOYMENT SCHEDULE MEETS COMMUNITY EXPECTATIONS

In the *Stay Order*, the Commission indicated that it “expects all carriers seeking relief to work with the state and local E911 coordinators and with all affected PSAPs in their service area, so that community expectations are consistent with a carrier’s projected compliance deadlines.”⁶ ASTAC has been and continues to be working closely with state emergency services administrators with respect to E911 deployment. ASTAC meets with representatives of the local PSAP on a regular, monthly basis. The most recent contact occurred approximately two weeks ago. As part of this ongoing dialog, ASTAC has discussed its Phase II implementation schedule as described herein. The parties have also discussed the fact that the PSAP is not presently equipped to process Phase II data and is not expected to achieve such capability in the near future due to the unavailability of state funding earmarked for this purpose. Based on these discussions, ASTAC believes that it will have its overlay complete and operational well before receiving any PSAP request for Phase II deployment. Thus, ASTAC’s deployment schedule meets community expectations and exhibits its ongoing good faith efforts to implement E911 capabilities in a timely yet realistic manner.

⁶ *Stay Order* at ¶ 28.

IV. CONCLUSION

Based on the foregoing, ASTAC respectfully requests that the Commission grant ASTAC a temporary limited waiver of Section 20.18(g)(1)(i)-(iv) and permit ASTAC to implement its Phase II solution based on the schedule set forth in its *Waiver Petition*.

Respectfully submitted,

**ARCTIC SLOPE TELEPHONE
ASSOCIATION COOPERATIVE, INC.**

By: _____/s/_____

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Its Attorneys

Dated: December 1, 2003

Exhibit 1

Vendor Correspondence re: Unavailability of TDMA Handsets



BRIGHTPOINT

Brightpoint North America L.P.

Howard Shapiro
Bennet & Bennet, PLLC
Tenth Floor
1000 Vermont Avenue, N.W.
Washington, DC 20005

Dear Mr. Shapiro:

Brightpoint is a wholesaler of wireless equipment. Our clients include smaller wireless carriers that do not purchase equipment, such as handsets, in large enough quantities to obtain volume discounts directly from equipment manufacturers. As a wholesaler, Brightpoint makes equipment available from a number of different manufacturers.

In response to your inquiry, this letter will confirm that Brightpoint does not currently have any TDMA handsets containing handset-based location technology in its inventory of products.

Please let me know if you have any questions.

Sincerely,

David C. McKenna

David McKenna
Sr. Director of Purchasing