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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
To Ensure Compatibility with	)	RM-8143
Enhanced 911 Emergency	)	
Calling Systems	)	
	)	
Requests for Waivers of	)	DA 98-2631
Section 20.18(e) of the	)	
Commission's Rules	)	

To: Chief, Wireless Telecommunications Bureau

MOTION OF TEXAS INSTRUMENTS INCORPORATED
FOR LEAVE TO FILE COMMENTS OUT-OF-TIME

Pursuant to Section 1.46 of the Commission's Rules, 47 C.F.R. § 1.46, Texas Instruments Incorporated ("TI") respectfully submits this motion to file comments in this proceeding out-of-time. TI believed that it had filed these comments in compliance with the schedule set forth in the Wireless Telecommunications Bureau's December 24, 1998 Public Notice, but due to an inadvertent administrative oversight, the comments were not filed at all. TI has only now become aware that the comments were not actually filed, and they are being provided now with the utmost haste.

Because these comments are intended to provide information to aid in the Bureau's consideration of possible waiver requests under the Public Notice, no party will be prejudiced by this delay. The Bureau's inclusion of the comments in the record is in the public interest, will not harm other parties and will provide input that will allow the Bureau to more completely examine the issues raised in its Public Notice.

WHEREFORE, this motion should be granted because the inclusion of the comments in the record is in the public interest and will not prejudice interested parties.

Respectfully submitted,

TEXAS INSTRUMENTS INCORPORATED

By: _____

Robert C Carl

Dated: March 15, 1999

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
To Ensure Compatibility with	)	RM-8143
Enhanced 911 Emergency	)	
Calling Systems	)	

To: The Wireless Telecommunications Bureau

COMMENTS OF TEXAS INSTRUMENTS

Pursuant to the Public Notice issued by the Wireless Telecommunications Bureau on December 24, 1998 ("Public Notice"), Texas Instruments Incorporated (TI) hereby submits these Comments to aid the Bureau in its consideration of any requests for waivers of Section 20.18(e) of the Commission's E911 rule. Such waivers would allow carriers to consider the option of a handset-based technological solution to meet the Commission's E911 goals. In determining whether to adopt a handset-based approach to the Commission's Phase II Automatic Location Identification ("ALI") requirements, and in implementing a handset-based solution, carriers will necessarily rely upon producers of handsets and semiconductor vendors, including Texas Instruments, to be able to meet carriers' needs for location-enabled handsets. Accordingly, the purpose of these Comments is to inform the Bureau of the issues influencing TI's ability to meet those carrier needs, and in turn the goals of the Commission.

I. Introduction and Summary

At the outset, TI commends the Bureau on its prompt action to assure technological neutrality in the realization of the Commission's Phase II goals. As the Bureau notes in its Public Notice, the Commission has recognized "concerns that the effect of Section 20.18(e)

might not be technologically and competitively neutral for some technologies that might be used to provide ALI, in particular handset-based technologies such as those using the GPS satellite system." Because of the flash-cut nature of the Phase II implementation contemplated by Section 20.18(e), Texas Instruments shares those concerns. If the Bureau had not indicated its willingness to grant waivers of Section 20.18(e), carriers would have been denied the option of considering a handset-based solution.

TI currently plans to make generally available the Digital Signal Processing solution necessary to implement a handset-based solution. Manufacturers can then produce handsets for delivery to the carriers using these solutions.

If the Bureau or the Commission acts quickly and establishes reasonable standards for the deployment of a handset-based solution, the market will ensure that consumers rapidly receive the benefit of location-enabled handsets. Handset users are projected to replace their handsets at extremely high rates in the next few years, ensuring that new location-enabled handsets quickly could be in the hands of consumers. The critical question is not whether the market will meet handset turnover predictions, but whether manufacturers will be able to make location-enabled handsets available to carriers soon enough to meet Bureau expectations.

The short answer to that question is *yes*. At the current rate of development, TI believes that, if the Bureau acts quickly to allow phased-in deployment of a handset approach, location-enabled handsets could be available in commercial quantities by the end of 2000.

II. Uncertainties Have Caused Delays

The primary factor in determining whether manufacturers can provide location-enabled handsets to carriers in time to meet any regulatory requirement is the date of the carrier's first order. Until that pistol sounds, manufacturers will not be in a position to finish their leg of the

relay race. That starting signal will be determined by the specificity and timing of the Bureau's guidance.

Thus far, uncertainties as to the regulatory viability of a handset solution have dampened the interest of U.S. carriers in a handset-based approach. As a result, handset-based location technology is proceeding to commercialization more quickly overseas. For example, NTT Mobile Communications has announced plans to deploy a handset-based location technology over its wireless network in Japan in 1999. Once U.S. carriers understand that they, too, have the option of adopting a handset-based solution, they will make a choice and manufacturers will fill their orders. But until that decision is made, manufacturers can have no role in bringing a handset-based solution to the marketplace. Removing the existing regulatory uncertainties—specifically, by allowing a phased-in deployment of location-enabled handsets rather than the flash-cut deployment contemplated by Section 20.18(e)—will clear the greatest existing barrier to commercialization of this technology.

Once regulatory uncertainties are resolved and carriers are free to make objective decisions on whether to adopt a handset-based solution, the Commission need take no further action to bring this technology to consumers. At that point, market forces will take over, pushing the technology to commercialization and into the hands of callers in emergency situations.

III. The Current State of Development of a Handset Solution

If the Bureau acts to eliminate the above-described regulatory uncertainties before the end of the first quarter of this year, TI expects to provide DSP technology to handset manufacturers to produce commercial quantities of location-enabled handsets before the end of 2000. As this section describes, the technology is well along in development.

As the Bureau may be aware, carriers, handset manufacturers, and chip producers have come together with one of the handset solution inventors to form a test group to evaluate the technical and commercial feasibility of one of the handset solutions. Current indications are that GPS-based handset solutions can provide significantly greater location accuracy than that currently required by Section 20.18(e), as well as high fix rates across a wide range of environments. Prototype testing is planned for this year, and so far no major technical obstacles have arisen. TI plans to continue to develop the solution in conjunction with handset manufacturers and carriers.

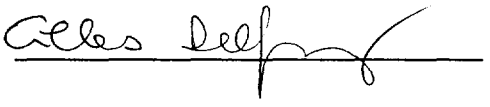
In addition, standards work is progressing. Parameters are already being specified for location messages to and from the wireless handset. For instance, the TR45.5.2.3 subcommittee has agreed on a recommended standard harmonizing the needs of several inventors with handset-based approaches to ALI. In light of such developments, Texas Instruments believes that handset technology, once freed from regulatory restraints, can be produced in commercial quantities without additional developmental delay.

IV. Conclusion

Texas Instruments fully supports the Commission's efforts to accurately locate emergency wireless callers. These Comments are filed in order to help make those efforts successful. If the Bureau acts quickly to enable carriers to choose a handset-based location technology, TI expects to be able to provide DSP technology to allow handset manufacturers to produce location-enabled handsets in commercial quantities in less than two years.

Respectfully submitted,

TEXAS INSTRUMENTS

By: 

Gilles Delfassy, Vice President and General Manager, Wireless Communications Business Unit

Dated: February 04, 1999