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November 9, 2000

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Magalie Roman Salas, Secretary
Office of the Secretary
Federal Communications Commission
445 - 12th Street, SW
Washington, DC 20554

**Attn: Patrick Forster, Senior Engineer**
**Room 3-A104**
**Policy Division**
**Wireless Telecommunications Bureau**

**Re: Uintah Basin Electronic Telecommunications d/b/a UBET Wireless,**
**Implementation Plan of Wireless E-911 Phase II**
**Automatic Location Identification**
**Notice Pertaining to CC Docket No. 94-102**

Dear Ms. Salas:

On behalf of Uintah Basin Electronic Telecommunications d/b/a UBET Wireless, we are transmitting herewith its Report on Implementation of Wireless E-911 Phase II Automatic Location Identification.

Please refer any inquiries or correspondence in connection with this matter to our offices.

Very truly yours,

Robert M. Jackson

Attachment
cc(w/att): Bruce H. Todd

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List ABCDE

**UINTAH BASIN ELECTRONIC TELECOMMUNICATIONS**
**D/B/A UBET WIRELESS**
**3843 South Highway 40**
**P.O. Box 157**
**Roosevelt, Utah 84066**

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Magalie Roman Salas, Secretary
Office of the Secretary
445 - 12th Street, S.W.
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**Attention: Patrick Forster, Senior Engineer**
**Room 3-A104**
**Policy Division**
**Wireless Telecommunications Bureau**

**Re: Implementation Plan of Wireless E-911 Phase II Automatic Location Identification Notice Pertaining to CC Docket No. 94-102**

**E-911 PHASE II STATUS REPORT**

Dear Ms. Salas:

In accordance with the Third Report and Order in CC Docket No. 94-102 and the Commission's related Public Notice, Mimeo DA 00-2099, released September 14, 2000, we hereby submit our report on the status of implementation plans for Wireless E-911 Phase II Automatic Location Information ("ALI"), as follows:

**Background/Contact Information**

1) Carrier Identifying Information:

Uintah Basin electronic Telecommunications d/b/a UBET Wireless
TRS Number: 804589

2) Contact Information: Bruce H. Todd, General Manager
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**E-911 Phase II Location Technology Information**

1) Type of Technology: We are a small Commercial Mobile Radio Service licensee serving sparsely populated rural areas. We initially explored the possible deployment of a handset-based solution for E-911 ALI, but, to date, it does not appear that a handset-based solution would be feasible for us to deploy.

Accordingly, we have tentatively concluded to deploy a network-based solution for E-911 ALI. We have explored the offerings of two ALI equipment vendors, the Grayson Wireless Division of Allen Telecom ("Allen Telecom") and U.S. Wireless Corp. ("U.S. Wireless"). The Allen Telecom system employs Time Difference of Arrival ("TDOA") and Angle of Arrival ("AOA") technologies, the latter being used principally in areas where the carrier's wireless base station locations are spaced far apart. While the Allen Telecom solution appears to be technically feasible, the relatively high price of the equipment, installation and testing may make it economically infeasible for us to deploy the Allen Telecom system. The U.S. Wireless solution employs a Location Pattern Mapping Network ("LPMN") technology. At present, no firm decision has been made as to which of the competing systems to deploy, although we are currently leaning toward the Allen Telecom system. It should be emphasized that, at present, the ALI equipment is still in the research and development stage, and, as a result, none of the equipment is ready for commercial deployment. The final selection will be based upon a combination of pricing, technical suitability, and receipt of an acceptable equipment delivery date, once the equipment is ready for commercial deployment.

2) Testing and Verification: Allen Telecom has field tested its Geometrix equipment as part of its research and development program. As we understand it, this field testing has been performed using Geometrix WLS units installed at host wireless network base stations and connected to existing wireless network antennas. According to the information obtained, all field tests have been performed using commercially available subscriber handsets operated in their normal mode and with their standard antennas. Similarly, as we understand it, the wireless networks

hosting the field tests have been operated in their normal manner, including full power control. According to the test data, all Geometrix calculated positions have been compared with ground truth as determined by Differential GPS ("DGPS") at the test point, or precise measurements to the test point from the nearest point where a DGPS position could be obtained. As we further understand it, in an extensive field test with Verizon Wireless, the CDMA Development Group test plan for wireless location systems provided a thorough, orderly, and impartial procedure for selecting test locations; and field test results were summarized to reflect the weighting of actual wireless E-911 calling patterns within the entire geographic coverage area in which the Geometrix system was tested.

With respect to the actual deployment of a commercial system, there is very little information available from the vendors. Accordingly, it is difficult to devise a testing methodology for a commercial system. We intend to purchase a "turn-key" system, with testing and verification performed by the manufacturer prior to our acceptance of the installation. Thereafter, we anticipate regular testing of random locations throughout our service area, beginning in areas where the PSAP has requested Phase II deployment.

However, notwithstanding the foregoing, the following testing and verification methodology looks promising: Each individual wireless base station will have test calls placed on it utilizing various models of portable and 3 watt subscriber units. These tests will be performed using both AMPS and CDMA handsets. The geographic location of the subscriber unit can be verified by using a separate, handheld GPS receiver and comparing the coordinates against the coordinates identified using the ALI equipment's location determination subroutine.

3) Implementation Details and Schedule: We plan to adhere to the implementation schedule established by the Commission in the Fourth Memorandum Opinion and Order, released September 8, 2000. However, our ability to do so will depend, in large measure, on the ability of equipment manufacturers to have their products operational and delivered in a timely manner. No equipment vendor has been able to commit to a firm delivery schedule. It is anticipated that the equipment installation will be performed by the equipment vendor under a "turn-key" contract.

4) PSAP Interface: The Allen Telecom Geometrix system does not connect directly to the PSAP. Instead, all exchanges between Geometrix and the PSAPs take place through a Mobile Positioning Center ("MPC"). Thus, the interface with the PSAP is determined by the MPC.

5) Existing Handsets: Not applicable.

6) Location of Non-Compatible Handsets: Not applicable.

7) Other Information: We have received no PSAP requests for Phase II ALI.

Respectfully submitted,

**Uintah Basin Electronic Telecommunications d/b/a UBET Wireless**

Dated: November 9, 2000

By: Bruce H. Todd
Bruce H. Todd
General Manager