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December 21, 1994

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DEC 21 1994

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

RE: PR Docket 93-61, Automatic Vehicle Monitoring Systems

Dear Mr. Caton:

The attached is submitted on behalf of AirTouch Teletrac. Copies have been provided to Ruth Milkman, Senior Legal Advisor to Chairman Hundt; Jill Luckett, Special Advisor to Commissioner Chong; Lauren Belvin, Senior Legal Advisor to Commissioner Quello; Rudolfo Baca, Legal Advisor to Commissioner Quello; David Siddall, Legal Advisor to Commissioner Ness; James Coltharp, Special Advisor to Commissioner Barrett, and Rosalind Allen and Ron Netro of the Wireless Bureau. Please associate this material with the above-referenced proceeding.

Two copies of this notice were submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(1) of the Commission's Rules.

Please stamp and return the provided copy to confirm your receipt. Please contact me at 202-293-4960 should you have any questions or require additional information concerning this matter.

Sincerely,

Kathleen Q. Abernathy

Attachment

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Comments on Pinpoint Ex Parte Documents

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

This Ex Parte responds to issues raised in two recent ex parte documents from Pinpoint Communications ("Pinpoint") dated December 8, 1994 and December 12, 1994. AirTouch Teletrac ("Teletrac") wishes to present an alternative view on these issues that is supported by the weight of the evidence already on record in this proceeding.

WIDEBAND AVM SHARING

Pinpoint claims it is designed to operate on a shared basis. Yet, not a single other wideband AVM provider has agreed that it can share with Pinpoint. The other wideband AVM providers agree that unless all systems use the same technical approach as Pinpoint, sharing will be extremely complex and inefficient, if at all possible. Pinpoint's proposal for time sharing in the upper wideband segment would in effect give them exclusivity because all other systems would not be able to share and would have to co-exist in the lower wideband segment. Additionally, because of housekeeping transmissions required by wideband AVM systems, all systems would have to be modified to allow coordinated operations. Because of the diversity in AVM system designs, this was strongly opposed by all other wideband AVM companies when Teletrac proposed its shared band plan. Additionally, as already shown by the test results and analysis of Teletrac and other wideband AVM companies, sharing is only practical for low powered reverse link transmissions. High powered forward link transmissions will cause significant interference to reverse link transmissions of other AVM systems. Therefore, there must be forward link allocations separate from the wideband reverse link allocation.

ADDITIONAL WIDEBAND OPERATION OUTSIDE THE WIDEBAND SEGMENTS

As an addition to the wideband AVM allocations already proposed by the FCC, Pinpoint proposes a variation to its previous sharing plan. The basis of this alternative is sharing of reverse link spectrum with narrowband AVM and Part 15 on a co-equal basis in the 910 - 920 MHz segment. Pinpoint further proposes to use 2 MHz between 902 - 904 MHz for high powered wideband forward links on a shared basis. If amateur radio operators, Part 15 developers, and narrowband AVM developers agree that such an approach is viable, then Teletrac does not oppose it as an additional wideband AVM allocation. However, Teletrac is skeptical that such an environment is workable given the degree of interference created by narrowband AVM fixed site transmitters to wideband AVM reverse links. Also, the benefit of shared use of 2 MHz for forward links is questionable given that separate narrowband allocations is a superior and more spectrally efficient alternative. This forward link sharing incorporates the same complications inherent in Pinpoint's previous time sharing proposals.

INTERFERENCE

Pinpoint claims that it is designed to co-exist with other systems and yet continues to advocate high powered wideband forward links which have been strenuously opposed by the Part 15 community. In fact the Part 15 community has stated that narrowband forward links do not present an interference problem. If the FCC wants to allow operations such as Pinpoint's in this band and feels testing is necessary before making a decision, it should include a requirement for testing as part of the licensing process for AVM systems that employ high powered wideband forward links. Delaying the rulemaking when the majority of systems do not present an interference threat to other users is not in the public interest. Such action will only delay the availability of new and useful services to the public.

Teletrac has demonstrated its tolerance to Part 15 interference through years of real world co-existence with Part 15 equipment. If properly planned, executed and analyzed, proposed testing may be informative for developers of new and unproven systems. However any testing, no matter how well conceived, cannot replicate the results of the real-world experience Teletrac has put on the record. Additionally, as shown by recent discussions between AVM and Part 15 companies, there is a strong potential for intentional delays or manipulation of the testing for other than technical reasons. No matter how complete the testing will be, there will always be scenarios and devices that are not tested. At the end of a test program, there will always be more testing that can be done. When completed, the results will be subject to numerous interpretations and challenges. In the end, testing will show that systems can interfere with each other under certain conditions and they don't interfere in other situations. It will not show to what degree such interference will occur in the real world nor how it can be corrected when it does occur. Testing will only cause needless delay and serve the interests of those that seek to prevent a resolution of this proceeding.

If the FCC nevertheless believes that some form of testing is necessary, it could require only Part 15 and AVM systems that do not have a track record of co-existence to submit to testing prior to becoming operational. This testing could be made a part of the future licensing process for operation in the wideband AVM segments. Under such a process, AVM licensees could provide real world test results after construction but prior to becoming operational. However, it must be made clear that even in this case, the resolution of interference caused by scenarios that were not tested must be addressed. This reinforces the need for good faith negotiations by parties on both sides with independent arbitration. This is the only way to deal with real-world interference when it does occur. It is only through such a cooperative process that systems may continue to develop without arbitrary technical constraints and complex oversight.

SYSTEM CAPACITY

Pinpoint's claims of capacity are based on future capabilities of a test system that has not been deployed in a commercially operational configuration. This limited system employs a dense infrastructure that cannot be viable as a commercial system. In the end, the capacity of a system that cannot meet the service demands of the market at a reasonable cost is of little use to anyone.

Wideband AVM proponents are in general agreement that AVM system location capacity increases as the square of the bandwidth. Given realizable technical approaches, an AVM system's capacity is primarily limited by the amount of spectrum authorized. Theoretical limits of performance cannot be exceeded. In an equal amount of spectrum, Teletrac can achieve the same capacity as other systems for a given level of service quality and cost.

Teletrac's capacity of 70 location transactions per second is based on actual experience at performance levels and price points customers demand. Teletrac plans are in place for higher capacity operations in response to growing customer demand. This approach allows Teletrac to offer a high quality of service at the lowest possible cost with system capacity that can grow as the customer base grows. A spectrum allocation of 6 to 8 MHz for wideband AVM will provide sufficient bandwidth to offer a high quality of service and sufficient capacity to meet market demands at a cost customers are willing to pay.

Teletrac thanks the FCC for this opportunity to express its views on these issues. Teletrac continues to believe that the record is complete on each of these issues and that a decision can and should be made as quickly as possible. Further delays simply deprive the public of the benefit of new and useful AVM services.