Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Section 90.239 of the	)	
Commission's Rules to Adopt Permanent	)	**RM No. 8013**
Regulations for Automatic Vehicle	)	
Monitoring Systems	)	

COMMENTS OF MOBILEVISION IN SUPPORT OF THE TELETRAC PETITION FOR RULEMAKING

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An Ameritech/METS Partnership

July 23, 1992

SUMMARY

In 1974, the Commission adopted "interim rules" governing the licensing of Automatic Vehicle Monitoring (AVM) systems. Under the interim rules, AVM technology has developed to the point that licensees are able to implement advanced high volume AVM systems. The growth of AVM technology has created new demand for location services, to address both commercial and personal needs and licensees are responding with services which are affordable to a wide range of consumers.

While the interim rules have been sufficiently flexible to allow AVM systems to evolve to date, the rules now are outdated and impede further technological development. North American Teletrac and Location Technologies, Inc. (Teletrac) has filed a petition for rulemaking to correct the deficiencies which exist in the interim rules. The Commission should adopt permanent rules along the same lines as those proposed by Teletrac. Permanent rules should include technical specifications designed to improve system performance. Moreover, permanent rules should contain a clear licensing scheme designed to reward innovation and discourage speculation.

Specifically, permanent technical standards should focus on eliminating frequency interference which represents the single greatest obstacle to effective AVM system operation. Interference results in system inaccuracy, delays location, or prevents location altogether. Thus, interference undermines the very purpose of AVM technology -- to provide for quick, accurate location. In doing so, interference discourages further investment in AVM and thus stymies technological growth.

To alleviate this debilitating interference, at the threshold the Commission should allocate the 904-912 MHz and 918-926 MHz frequencies exclusively to wideband pulse-ranging AVM systems. In the past, the Commission has licensed narrowband systems on

the wideband frequencies, and as a result narrowband operation has become a continual source of interference for the wideband AVM systems. Therefore, the Commission should not license narrowband systems in these bands in the future. Devotion of spectrum exclusively to wideband AVM systems will ensure quality service devoid of interference.

Furthermore, permanent rules should provide for co-channel separation between wideband AVM licensees within well-defined geographic service areas. Two wideband pulse ranging systems located in the same service area cannot co-exist on the same 8 MHz. The two systems would inevitably interfere with one another rendering both systems inoperable. Furthermore, in addition to addressing interference concerns, service areas must be broad enough to allow location throughout an entire metropolitan area. Otherwise many useful applications for AVM technology, such as stolen vehicle location and other law enforcement assistance, will be undermined.

Finally, the Commission should adopt a complete licensing scheme which grandfathers AVM licenses issued prior to Teletrac's petition for rulemaking. Grandfathering will encourage current licensees to continue developing their technology while recognizing the substantial commitment they have made to AVM technology. However, the Commission should be careful to craft a licensing scheme which includes threshold requirements to ensure that each licensee is qualified to develop and operate a system. Absent such threshold requirements, system build out could be inhibited and wasteful license speculation will abound.

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MobileVision, an Ameritech/METS partnership, respectfully submits these comments in support of North American Teletrac and Location Technologies, Inc.'s (Teletrac's) Petition for Rulemaking in the captioned proceeding. In 1974, the Commission promulgated interim rules to govern the licensing of Automatic Vehicle Monitoring ("AVM") Systems. Later, beginning in the mid-1980's, current MobileVision partner METS, Inc. (METS) and other companies identified significant consumer demand for location services and began investing millions in the development of AVM systems. As a result of this effort, advanced high volume automatic vehicle monitoring systems have become a technological and commercial reality. Moreover, efficiencies associated with the new technology allow AVM providers to offer service at lower rates to both individual and commercial customers.

Companies such as MobileVision are currently designing and implementing AVM systems throughout the United States -- with resulting benefits to consumers. These systems are being used to summon emergency roadside assistance, to locate stolen vehicles, for fleet tracking, and many other practical applications. There is a problem.

The 1974-vintage "interim" rules, under which MobileVision and other AVM systems are currently licensed, impede the build-out of these systems. These rules have failed to keep pace with 1992 technology and markets and their "interim" nature causes a great deal of uncertainty among potential investors. "Permanent" rules governing AVM systems are needed to encourage capital investment in innovation and to facilitate the introduction of new services to the public.

The Commission should promote the continued development of AVM systems by initiating a rulemaking and adopting permanent rules:

- Requiring co-channel separation between wideband pulse-ranging AVM systems to protect AVM licensees from severe degradation in service quality caused by interference;
- Allocating the 904-912 MHz and 918-926 MHz bands exclusively to wideband pulse-ranging AVM system licensees;
- Allowing licensing of new narrowband service providers only within 903-904 Mhz and 926-927 MHz;
- Defining specific geographic service areas, allocating frequencies within those areas, and prescribing technical standards; and
- "Grandfathering" licenses for both wideband and narrowband systems issued prior to the date of Teletrac's petition for rulemaking.

In large part, Teletrac's proposed rules are consistent with these objectives. By initiating a rulemaking proceeding now, using Teletrac's proposed rules as a guidepost (with the minor modifications MobileVision proposes herein), the Commission will promote the efficient allocation and use of spectrum. Moreover, the Commission will

establish a stable regulatory regime and thereby spur investment in AVM systems. Finally, the Commission will ensure that the public receives expeditiously new and important AVM services.

BACKGROUND

A. MobileVision's Interest in This Proceeding.

MobileVision is a partnership between Ameritech and METS which was formed for the purpose of deploying and implementing AVM technology. METS is a pioneer in the development of AVM systems and has invested in excess of $20 million making its AVM system a commercial reality. MobileVision, as a partnership, has invested another $20 million in AVM system deployment. The METS system is capable of performing several practical functions including but not limited to:

- Fleet and transit management: Businesses can be assured instantaneous and accurate location, management, and emergency service for fleet vehicles, thereby greatly improving their commercial performance and productivity;
- Law enforcement assistance: Police can achieve rapid recovery of stolen vehicles and quick apprehension of the thieves. Moreover, motorists in danger can summon police assistance immediately.
- Emergency road service: Motorists suffering mechanical or medical difficulties can summon emergency assistance even when the motorist cannot pinpoint his or her location.

MobileVision currently holds licenses to operate wideband pulse-ranging AVM systems, providing the above-mentioned services and others, in cities throughout the United States. The MobileVision partners are now in the process of building out the METS system in Chicago, Illinois, and many other cities. MobileVision thus possesses a direct and immediate interest in the promulgation of permanent rules which both recognize its prior investment and provide incentives to continue the development of AVM systems. Therefore, MobileVision supports Teletrac's petition and urges the Commission to adopt permanent rules for the licensing and operation of AVM systems.

B. The 1974 Interim Rules.[1]

In the late 1960's both public and private entities began to experiment with AVM technology. The experiments unveiled many of AVM's potential benefits, but also revealed its limitations. The experimental systems, like those of today, used wideband technology and therefore required substantial interference-free spectrum to operate. Existing interference on available bands made widespread development of the technology impractical and thus discouraged potential investors.

In 1974, the Commission responded to these problems by adopting a set of "interim" rules.[2] In its order adopting the interim rules, the Commission noted that the primary function of automatic vehicle monitoring was to "automatically determine and make available at a central point the position of each member of a group of vehicles."

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[1] For a more detailed historical perspective on AVM, and the interim rules *See* Attachment A at 3-9.

[2] Inquiry As To Automotive Vehicle Location Systems In The Land Mobile Road Services, 30 R.R. (P&F) 2d 1665 (1974).

30 R.R.2d 1665 n.1.[3] The Commission contemplated that this would be accomplished through: "(a) acquisition of vehicle location data; (b) communication of location data to a processing point; (c) computerized processing of data; (d) display to user of processed information." 30 R.R.2d at 1667 ¶ 6.

The rules themselves include technical standards to ensure efficient use of spectrum and thus quality service. For instance, the rules provide for two separate wideband vehicle location systems in each geographical area operating on different frequency bands, 904-912 MHz and 918-926 MHz respectively. 47 C.F.R. § 90.239(c). Similarly, the rules provide for licensing of narrowband systems outside these bands, at 903-904 MHz and 927-928 MHz. 47 C.F.R. § 90.239 (e)(2).

C. Technological advances and increased consumer demand since 1974.

Since 1974, AVM developers have made substantial advances in location technology which have made the service both commercially viable and widely affordable. For example, in 1974 the Commission noted that wideband AVM systems could accommodate "upwards of 10,000 vehicles [at] high capacity." 30 R.R.2d at 1670 at ¶ 9. In contrast, current systems can accommodate millions of vehicles. Similarly, 1974 technology was conceptually and technologically limited to locating vehicles, which were entities large enough to carry the necessary tracking devices. 30 R.R.2d at 1666 ¶ 4. Subsequently, computer microprocessors have allowed for miniaturization of tracking equipment,[4] and as a result current technology is capable of locating a wide-range of

[3] The interim rules also provided for secondary uses of the frequencies such as for data transmission. 30 R.R.2d at 1665 n.1.

[4] See Attachment A at 8.

objects both animate and inanimate. Furthermore, 1974 technology was only capable of locating vehicles within a distance of 1000 feet. 30 R.R.2d at 166 n.6. Today's advanced microprocessors allow location which is accurate within 100 feet.[5] Finally, the declining cost of system components such as the advanced microprocessors, allows AVM licensees to provide these improved services at much lower rates. Therefore, AVM systems have become both commercially viable and affordable to a wide range of consumers.

Consumer interest in AVM services has kept pace with this technological growth. In today's market there is a substantial commercial and individual demand for flexible and reliable automatic vehicle monitoring service for use in a wide array of practical applications. Thus, AVM systems can satisfy an immediate need for fleet tracking and management, stolen vehicle recovery, emergency roadside assistance, and law enforcement assistance. Under the proposed permanent rules, licensees will be able to provide these and many other services which will be crucial to the commercial viability of the technology. Moreover, flexible permanent rules will stimulate continued investment, encourage development of new technologies and applications, and ensure that the latest technology reaches the consumer in a timely manner.

D. Goals For This Proceeding.

The Commission should establish three principal goals in this proceeding: (1) to establish "permanent" rules; (2) to promote efficient allocation and use of spectrum; and (3) to promote rapid technological development and implementation of new services.

1. Establish permanent rules.

[5] See Attachment A at 8-9.

The Commission's first goal in this proceeding should be to establish permanent rules for automatic vehicle monitoring service. While "interim" rules were sufficient when AVM technology was yet untested and uncertain, "permanent" rules are essential for licensees who have devoted (and are devoting) millions of dollars to implement high volume, advanced technology AVM systems. Permanent rules eliminate the uncertainty inherent in "interim" rules, and thus encourage licensees to build out systems and to invest in the development of innovative AVM technology. Similarly, the increased certainty of permanent rules will attract outside investors to AVM ventures. Absent the necessary multimillion dollar capital investment, many innovative systems and services may never reach the consumer. Therefore, the Commission should adopt permanent rules for the licensing and operation of AVM systems.

2. Encourage the efficient use of spectrum.

The Commission's second goal should be to promote the efficient use of spectrum. Wideband pulse-ranging location systems cannot coexist with other systems located in the same geographic area and operating on the same frequency band. As explained in MobileVision's technical analysis (*See* Attachment A at 10-14), it is extremely difficult for AVM systems to tolerate the interference that already exists on AVM frequency bands. If the Commission licenses multiple wideband users and allows them to operate on the same spectrum, both systems will become completely inoperable. In order to ensure that the spectrum is usable, the Commission must provide for co-channel separation between wideband systems.

3. Promote Rapid Technological Development and Implementation of New Services.

The Commission's third goal in this proceeding should be to adopt flexible rules which promote development of AVM systems. The flexibility of the interim rules has allowed licensees to make substantial advances in location technology. For example, systems in 1992 have greater capacity, are more accurate and provide more services than were envisioned in 1974. Despite their past flexibility, the interim rules can no longer accommodate growing AVM technology.

For example, as stated in the petition, the interim rules provide only for location of vehicles. *See* 47 C.F.R. § 90.7 (definition of AVM). Current technology, however, can also be used to locate people or other objects. The permanent rules must accommodate such advances and similar future innovation. Similarly, under the interim rules, the Commission has licensed narrowband systems in the 904-912 MHz and 918-926 MHz bands. These licensees are causing substantial interference problems for wideband pulse-ranging systems. Therefore, in permanent rules the Commission should reinforce its formal position taken in the order adopting the interim rules -- that narrowband systems may only be licensed between 903-904 MHz and 926-927 MHz.

Moreover, permanent rules must allow licensees to introduce new applications for AVM in response to changes in market demand. The Commission recognized in 1974 that the needs of AVM consumers will differ greatly and therefore adopted flexible rules allowing AVM providers to service these varied needs. Substantial differences in the needs of AVM users remain. For example, fleet management requires very different services from stolen vehicle recovery, even though the core service for each is location. AVM providers must have the ability to identify the needs of AVM consumers and the authority to meet those needs in a timely fashion. Flexible rules will encourage

immediate investment, development, and provision of desired services -- with corresponding benefits to the public.

TECHNICAL ISSUES[6]

A. Co-Channel Separation and Service Area Definition.

The service quality of an AVM system is directly linked to the level of interference on the relevant spectrum. Interference can be devastating to system marketability and represents a formidable threat to the AVM industry.

AVM systems locate objects through a process called multilateration.[7] Specifically, an AVM customer is equipped with a device which emits radio signals to the system. The signals contain information and codes which identify the object emitting the signal and tell the system what is wrong, e.g, that the object is a car that is out of gas or has been stolen. The system utilizes multiple towers which each receive the signal. The system control center then calculates the object's distance from each of the towers based on the amount of time it takes for the signal to reach each tower and thereby identifies the location of the object. Interference distorts the signal as it travels between the towers and the object being located. When this occurs, either the system will not accurately locate the signalling object, will lose contact with the signalling object, or the system will fail entirely. *See* Attachment A at 10-14.

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[6] In this filing, MobileVision will provide comments on the more significant technical issues raised by the Teletrac petition. Other comments regarding technical issues will be raised during the rulemaking proceeding.

[7] The process is more fully described in Attachment A at 12-13.

Interference which precludes accurate location erodes the system's utility and thereby destroys its economic viability. To illustrate, recovery of a stolen vehicle depends upon the police being able to pinpoint the vehicle's location within a single city block. Simply placing the vehicle within a neighborhood or a particular quadrant of the city is insufficient. Similarly, reaching a bus driver who has activated the alarm system during a holdup or whose loaded bus has broken down in traffic requires the same level of accuracy. Simply put, accuracy and uninterrupted service are the essence of AVM and without them the service lacks commercial viability.

Interference arises from several different sources. For example, narrowband systems operating on the same frequencies cause substantial interference problems for wideband systems. These narrowband systems include automatic toll collection systems and amateur radio devices. *See* Attachment A at 10. In addition, wideband non-AVM systems create interference. These systems include anti-shoplifting devices and wireless local area networks. *See* Attachment A at 10. Finally, background emissions create additional interference. *See* Attachment A at 10. However, by far the most devastating interference would be created by multiple wideband pulse-ranging AVM systems operating on the same spectrum.

1. Co-Channel Separation.

The Commission should adopt proposed permanent rules mandating co-channel separation. The Commission's interim rules recognized the need for co-channel separation, providing for "two separate wideband AVM systems in each market." 30 R.R.2d at 1671. Since 1974, interference problems have compounded as more entities have been licensed on the AVM spectrum. Hence, co-channel separation, essential in

1974, is even more essential today.[8] Therefore, the Commission should reaffirm its conclusion set forth in the interim rules, and adopt permanent rules mandating co-channel separation.

If the Commission were to license multiple wideband systems on the same 8 MHz, and both licensees attempted to operate under those licenses, interference would render both systems dysfunctional. *See* Attachment A at 10. Each provider's efforts to identify and locate its own customers would be continually undermined by interfering transmissions emitted by the counterpart's system. An AVM system must maintain continuous command and control of the objects on its system in order to avoid collisions between signals. Interference arising from dual systems operating on the same band would preclude the necessary continuous control. By contrast, co-channel separation results in efficient spectrum use, and insures the highest quality service. Quality service stimulates investment in current AVM systems, and encourages licensees to develop new services responding to commercial and consumer needs.

Moreover, the nature and purpose of AVM service makes non-interference critical. For example, a person suffering a roadside or medical emergency can use AVM systems to signal for assistance. Interference interrupts the signal between the person in need and the AVM system, increases response time, and thus places the person in danger. In addition, when a vehicle is stolen, the likelihood of recovery will decrease over time. If an AVM system has interference, it will slow down the tracking of the

[8] While the Commission has actually licensed more than one wideband pulse-ranging system on the same frequency in a given market, there is no market where two systems are operating on the same frequency. ¶ 10.

vehicle and thereby decrease the likelihood of recovery. Finally, when location technology is employed to assist law enforcement, time is of the essence and debilitating interference cannot be tolerated.

2. Definition of Service Areas.

Likewise, the Commission should implement well-defined system boundaries to prevent interference between geographically adjacent AVM systems operating on the same 8 MHz. Moreover, the nature and purposes of AVM service mandates the designation of broad geographic service areas.

AVM systems will be used to monitor and manage objects which are mobile. Thus, in order to be commercially viable a system must be able to monitor and maintain contact with an object as it moves throughout a large area. For example, a metropolitan transit authority must be able to monitor its fleet throughout the entire metropolitan area. Fleet management of delivery and service vehicles requires similar coverage. In the case of a stolen car, the crime is by definition one which involves removal of the vehicle from one place to another, probably with considerable speed. Recovery of the vehicle requires that the system cover an area broad enough to ensure that the vehicle does not quickly move beyond the geographical limits of the system. Permanent rules must allow a single system to track objects moving within a wide area, otherwise the entire purpose of the technology and its commercial viability are undermined.

Therefore, the Commission should adopt well defined geographic service areas for provision of AVM services. These service territories should encompass a broad area, thus enhancing the marketability and efficiency of AVM service.

B. Frequency Assignment for Wideband Systems.

The Commission presently licenses wideband pulse-ranging AVM systems on the 904-912 MHz and 918-926 MHz bands. As proposed in the petition, permanent rules should exclusively allocate these frequencies to wideband pulse-ranging AVM systems. In order to provide maximum location accuracy and to flexibly respond to evolving consumer demand for new applications, AVM systems require eight MHz of spectrum. *See* Attachment A at 11. If the Commission were to license wideband systems at anything less than 8 MHz, licensees would experience a substantial degradation in service quality and would cause interference to licensees on adjacent frequencies.

1. Exclusivity within the 8 MHz.

In the future the Commission should exclusively devote the spectrum between 904-912 MHz and 918-926 MHz to wideband pulse-ranging AVM systems. Previously the Commission has licensed certain narrowband systems within the 904-912 MHz and 918-926 MHz bands. These narrowband systems cause substantial interference on existing wideband pulse-ranging systems. *See* Attachment A at 12. If the Commission continues to license narrowband systems in the 904-912 and 918-926 bands, the interference will increase to an intolerable level resulting in overall low quality AVM service.[9] Therefore,

[9] Prospectively eliminating narrowband licensing in 904-912 MHz and 918-926 MHz would not deny spectrum to narrowband systems. Narrowband systems could still seek licenses to operate at 903-904 MHz, 926-927 MHz, 20-50 MHz, 150-170 MHz, and 450-512 MHz as provided in the Commission's interim rules. Moreover, as discussed below, it would be appropriate to "grandfather" existing narrowband licensees operating in the 904-912 MHz and 918-926 MHz ranges.

the permanent rules must preclude new licensing of narrowband systems within the wideband frequencies.[10]

2. Standard Forward Link.

While a single wide-band pulse-ranging AVM system will operate only within one of the two 8 MHz bands, current AVM technology requires that the system have a 250 KHz forward link in the other band. The proposed rules provide for a standardized forward link in each band. The Commission should adopt Teletrac's proposal.

A standardized forward link will enable AVM licensees to plan their systems around the forward link devoted to the other AVM operator in the market. Absent such standardization, a licensee will likely attempt to operate on its counterpart's forward link frequencies causing interference. Therefore, the Commission should adopt the proposed rule requiring use of a standardized forward link.

C. Suggested Changes in Teletrac's Proposed Rules.

The Commission should initiate a rulemaking to establish permanent rules for AVM service. By and large, the Commission should adopt Teletrac's proposed permanent rules governing technical standards and specifications for AVM service. However, in order to ensure that the permanent rules are clear and consistent with the Commission's intent in licensing AVM systems, the Commission should make the following technical amendments.

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[10] The Commission prospective treatment of narrowband systems should not prejudice the right of wideband licensees to provide narrowband services. As the Commission recognized in its order adopting the interim rules, "supplemental" narrowband transmissions are an integral part of AVM technology. 30 R.R.2d at 1669-70 ¶ 8.

1. 47 C.F.R. § 90.239(c)(1).

The Commission should amend the opening phrase in section 90.239(c)(1) of the proposed rules. The Commission should eliminate the language "only wideband pulse-ranging systems" and replace it with the following phrase: "Only systems using wideband pulse-ranging technology. . ." The Commission's order adopting the interim rules made clear that wideband licensees are authorized to provide "supplemental" narrowband services. *See* n. 10 above. However, the rule, as written, could be construed to preclude transmission of narrowband signals by wideband licensees operating within their assigned frequencies. The Commission should adopt this proposed technical amendment to clarify its intention that wideband system operators have the authority to provide narrowband service.

2. 47 C.F.R. § 90.7 (Definition of AVM)

The second sentence of the definition of "Automatic Vehicle Monitoring System" in Section 90.7, which describes in part the operational scope of AVM systems, should be eliminated. Section 90.239 of the rules, by its terms, specifies in detail the parameters for the provision of AVM services, including operational and technical standards, and establishes the flexibility of the system to develop and provide supplemental services. Striking the second sentence of the AVM definition eliminates this redundancy and clarifies any ambiguity in the rules.

LICENSING ISSUES

A. Licensing in Markets with No Current Licensees.

In the event that no party is licensed in a market at the time the Commission adopts permanent rules, the petition proposes that the Commission grant subsequent

applications on a first-come first-served basis, subject to the grandfathering of existing licensees discussed below. These proposed procedures are fair and the Commission should adopt them. However, the Commission must also ensure that only qualified applicants will receive licenses. As the Commission has learned from other licensing schemes, rampant speculation is the rule rather than the exception. Therefore, any party filing a license application should be required to demonstrate the technical commitment necessary to develop and implement the technology.

1. Technical Commitment.

In order to make the requisite technical showing, the applicant should be required to demonstrate to the Commission that it has existing technology capable of providing location services in accordance with the proposed rules. Actual commercial operation of a system should presumptively satisfy this required showing. In the absence of actual operational experience, an applicant should be required to demonstrate satisfactory operation of a test system. A first-in-time applicant who meets these requirements and who otherwise qualifies for its license should hold the sole license on its band subject to meeting applicable construction requirements.

2. Build Out Requirements and License Term.

The Commission, as part of its permanent rules, should also adopt defined buildout requirements. The rules should require a party holding licenses in less than ten service areas to build out and operate systems in eight months or lose their licenses.[11] While eight months may be insufficient to build out a ten city AVM system, Teletrac's

[11] MobileVision also concurs with Teletrac that loading requirements are unnecessary and inappropriate for AVM licenses.

proposal for a ten year build out may be too long. Therefore, MobileVision proposes that a licensee in more than nine markets but less than twenty-five markets must build out its system in three years. A licensee in twenty-five or more markets will be entitled to a ten year build out schedule subject to the milestones set out in Teletrac's petition.

These standards will allow the development and orderly build out of integrated regional systems. In turn, the potential service enhancements of multi-market systems should encourage further investment in AVM systems. For similar reasons, as stated in the proposed rules, each licensee should hold its operating licenses for a period of ten years. Finally, the permanent rules should incorporate the current standard providing that a system is considered constructed and operational when it is available to potential customers. The flexibility afforded a multi-market provider by the extended period of construction together with an extended operational license period would permit AVM service to achieve its full potential.

B. Existing Licensees

1. Grandfathering.

The Commission must decide how to treat existing AVM licensees. Licensees such as MobileVision have committed substantial resources to the development of AVM technology. This commitment has resulted in the development of AVM technology to the point that licensees can implement cost effective, high volume, advanced technology systems. It would be improper for the Commission to deny those who pioneered the technology the fruit of their commitment now that they have developed and implemented wideband AVM systems. Therefore, the Commission should grandfather licenses issued

prior to the date of Teletrac's petition.[12] Moreover, grandfathered licensees should be subject to the same eight month/three year/ten year construction schedule imposed on new licensees.

2. Interim Applications.

Applications filed after the petition for rulemaking but before the implementation of permanent rules should not be grandfathered. First, any entity which has made a serious commitment to the development of AVM to-date should have secured a license prior to Teletrac's petition. The Commission cannot protect parties who have not secured a license and proven themselves committed to the development of AVM technology. This proposal is fair to applicants who have dedicated resources to the development of the AVM industry, as all entities will have a fair opportunity to apply for licenses in markets where there is no grandfathered license, under Teletrac's proposed rules.

Second, persons who have not previously invested in the technology will likely be speculators. Based upon the Commission's experience with other spectrum licensing schemes, it would not be surprising if the Commission is flooded with applications for AVM licenses from would-be speculators. The Commission must take steps to

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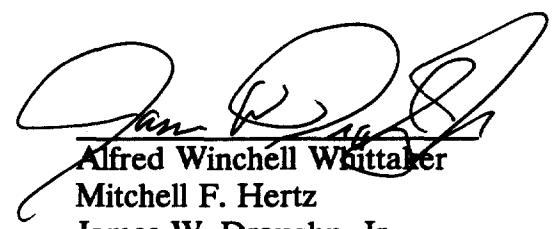
[12] This also would be consistent with the Commission's approach in the Pioneer Preference rules. Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 7 FCC Rcd 1808 (1992). In that docket, the Commission recognized that those parties who have developed new technologies should participate in the financial rewards of implementing that technology. Moreover, both narrowband and wideband licenses should be grandfathered. While it would more efficient (from a spectrum utilization standpoint) to reassign all narrowband licensees to 903-904 MHz and 926-927 MHz, it would also be unjust. These licensees have designed and implemented systems in reliance on the interim rules. The Commission should not disrupt their ongoing services.

discourage this speculation. Therefore, it is essential that the Commission not grandfather any license applications filed after the petition for rulemaking. The Commission will not further any interest by grandfathering post-petition licenses and, indeed, will simply impede the timely and efficient provision of service.

Conclusion

The implementation of automatic vehicle monitoring systems is progressing rapidly. In this dynamic environment, the Commission's interim rules cannot ensure efficient use of spectrum and high service quality. Companies implementing current technology under the interim regime are taking substantial risks, while inherently risky but otherwise beneficial innovation is being discouraged. For these reasons, and all those stated above, the Commission should initiate a rulemaking proceeding to ensure AVM's continued growth and the public's continued access to these important services.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that on this 23rd day of July, 1992, a copy of the foregoing "Comments of MobileVision" was served by first class United States mail, postage prepaid or by hand on the parties of record noted below:

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