

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

In the Matter of)	
)	
Request by LoJack Corporation of a)	
Partial Waiver of Section)	WT Docket No. 06-142
90.20(e)(6) and Part 2 of the)	
Commission's Rules)	

COMMENTS OF LOJACK CORPORATION

The LoJack Corporation ("LoJack"), by its attorneys, hereby submits these comments in support of its Request for Partial Waiver of Section 90.20(e)(6) and Part 2 of the Commission's Rules ("Waiver Request"). LoJack has requested a partial waiver to facilitate development of a system designed to track missing persons. Specifically, LoJack seeks a partial waiver of the Commission's Rules to:

- 1) allow for activation of its system via portable devices;
- 2) allow any public safety eligible to activate the Stolen Vehicle Recovery Service ("SVRS") frequency using a portable device; and
- 3) provide for an activation command duty cycle of 1000 milliseconds every 8 seconds.

Grant of the Waiver Request will lead to improved and more reliable recovery of missing persons, especially in life-threatening circumstances, a benefit to the public and law enforcement agencies.

BACKGROUND

Pursuant to Section 90.20(e)(6),¹ LoJack operates a stolen vehicle recovery network on 173.075 MHz in cooperation with state and local law enforcement

¹ 47 C.F.R. § 90.20(e)(6).

authorities. The LoJack system is deployed in 28 states and the District of Columbia.² Traditionally, law enforcement entities have been the licensees for the base stations used to activate mobile devices (vehicle locator units or VLUs) installed in vehicles. When police receive a report of a stolen vehicle, they initiate activation of the locator unit, which begin to transmit tracking messages to police trackers used to track and recover a vehicle.³

In 2008, the Commission modified the SVRS rules to allow for additional uses of the SVRS frequency, including the tracking and recovery of stolen cargo, hazardous materials, missing or wanted persons, and individuals at risk or wanted by law enforcement.⁴ Subsequently, LoJack began developing a system to search for persons at risk, such as Alzheimer's and nursing home patients and people with disabilities. As explained in the Waiver Request, this system will include a Portable Activation Tracker ("PAT"), a handheld device used to activate and track, within a limited geographical area, locator units worn by persons at risk. PAT is necessary to supplement LoJack's fixed network, as the search for missing persons requires greater coverage and precision than the search for missing vehicles.⁵

For the reasons stated herein, as well as in the record in this proceeding, LoJack requires a partial waiver of the rules to improve law enforcement's ability to search for missing persons, as well as other functions as allowed under the rules.

DISCUSSION

I. LoJack Has Demonstrated Good Cause for Grant of a Partial Waiver.

Waiver of the rules is appropriate when, as here, the underlying purpose of the rules would not be served by their application, and a waiver is in the public interest.⁶

² LoJack also has extensive international operations.

³ See *In the Matter of Amendment of Section 90.20(e)(6) of the Commission's Rules, Report and Order*, 23 FCC Rcd 12601 at ¶¶ 3-5 (2008) (*New Services R&O*) (describing LoJack's traditional stolen vehicle recovery operations).

⁴ The *New Services R&O* also modified some of the SVRS technical rules.

⁵ See Waiver Request at 2-3 and Supplemental Response at ¶ 4.

The Commission has determined that the tracking of missing persons by law enforcement on the SVRS frequency is in the public interest.⁷ The present rules frustrate the ability of law enforcement to have an enhanced, highly-reliable system to track missing persons. Grant of this waiver would facilitate that mission.

A. Activation Using a Portable Device.

Lojack has sought a waiver of Section 90.20(e)(6) to allow for the activation of mobile locator units via a portable device such as a PAT. The original LoJack system has employed base station towers to “ping” locator units (*e.g.*, VLUs) to turn on their tracker beacon signals. As noted in the Wavier Request, tracking missing persons requires a different approach from tracking stolen vehicles because missing persons must be found quickly and are often found in remote locations.⁸ A portable activation unit can ensure better and more reliable coverage for the tracking of missing persons, as it may be used in locations where there is no base station coverage.⁹

The present rules allow for transmissions by mobile devices for auto collision, vehicle fire, and carjacking alerts.¹⁰ The waiver would be in line with these mobile transmissions in that activation messages would only occur for a short duration until there is a response.¹¹

⁶ 47 C.F.R. § 1.925(b)(3).

⁷ See New Services R&O at ¶ 47.

⁸ See Waiver Request at 2-3.

⁹ *Id.* at 3 and Supplemental Response at ¶¶ 4 and 5. LoJack has experience using mobile activation devices in other countries, where building base stations is not feasible and/or is cost prohibitive. As noted in the Supplemental Response, *see* n.6, portable activation could be used for other SVRS services, such as tracking stolen vehicles involved in carjackings when a criminal may be motivated to go to a remote area where base stations may not be present to activate the locator unit.

¹⁰ 47 C.F.R. § 90.20(e)(6)(i).

¹¹ Generally, searches for missing persons are limited in time, both because missing persons are often found quickly and because searches are called off if missing persons are not found within a few days.

B. Activation by Portable Devices by Any Public Safety Pool Member.

To the extent necessary, LoJack also sought a waiver of footnote US 312 to Section 2.106 of the Commission's Rules to allow any member of the Part 90 Public Safety Pool to activate the SVRS frequency by mobile device. Historically, state and local police have been licensed to operate the base stations used to activate the LoJack system. However, in some jurisdictions law enforcement entities other than police, such as fire departments and search and rescue crews, have primary responsibility for searching for missing persons.¹² Given the urgency in searching for missing persons, and the need to conduct the search in an appropriate manner,¹³ these entities must have authority to activate the SVRS frequency using portable devices such as PAT.

LoJack believes that the present rules provide authority for any public safety pool eligible to activate the frequency using a mobile device. Section 90.20(e)(6)(vii) provides that "[a]ny entity eligible to hold authorizations in the Public Safety Pool in accordance with §§ 90.20(a) and 90.111 of this chapter is authorized by this rule to operate mobile transmitters on this frequency."¹⁴ Additionally, the New Services R&O allowed for the tracking of missing persons "through the aid of *law enforcement* equipped with SVRS technology."¹⁵ However, Part 2 is inconsistent with the SVRS rule and the 2008 rulemaking, as it limits authorization for use of the SVRS frequency to "non-Federal stations in the Public Safety Radio Pool, *limited to police licensees*."¹⁶ Given this inconsistency in the rules, LoJack sought a waiver of Part 2 to allow for all Public Safety Pool eligibles to activate the SVRS frequency using portable devices.

Waiver of the Part 2 footnote would assure that all public safety entities responsible for searching for missing persons could have access to devices such as PAT, which would allow for searching for missing persons in wooded areas and other

¹² Waiver Request at 2.

¹³ See Waiver Request at 2-3.

¹⁴ 47 C.F.R. § 90.20(e)(6)(vii).

¹⁵ *New Services R&O* at ¶ 47 (emphasis added).

¹⁶ 47 C.F.R. § 2.106, US 312 (emphasis added).

locations where police cars could not access. Waiver of Part 2 would not cause harm, as public safety pool entities would use the frequency only upon the filing of a missing persons report with a law enforcement agency. The waiver also would make the SVRS rules more consistent with other Part 90 rules that apply to all public safety pool entities rather than just the police.

C. Activation Command Duty Cycle.

Section 90.20(e)(6)(v) of the Commission's rules allows transmissions from SVRS mobile stations at a rate of 400 milliseconds every 10 seconds, except that when a vehicle is being actively tracked transmissions may be increased to 400 milliseconds every second.¹⁷ Base stations are allowed to transmit a total of 5 seconds every minute.¹⁸ LoJack sought a waiver of Sections 90.20(e)(6)(v) and (vi) to allow a duty cycle of 1000 milliseconds every 8 seconds for the transmission of activation signals, whether the activation signal transmits from a base station or a portable device such as a PAT.

This activation command duty cycle is necessary given the indexing process the next generation LoJack system will use to allow for battery-powered mobile units essential for the tracking of missing persons.¹⁹ Use of the requested duty cycle will prevent delays in activation, and reduce latency, making the search and recovery process more efficient.²⁰ Thus, the duty cycle waiver would provide a public benefit by offering a useful device to law enforcement and facilitating more efficient use of SVRS spectrum.²¹

¹⁷ 47 C.F.R. § 90.20(e)(6)(v). Alternatively, transmissions can be made for 7200 milliseconds every 300 seconds with a maximum of six messages per 30 minute period.

¹⁸ 47 C.F.R. § 90.20(e)(6)(vi).

¹⁹ See Amendment at 1; Supplemental Response at ¶ 3. LoJack also will be using battery-powered mobiles for the tracking of vehicles and other items.

²⁰ Amendment at 2.

²¹ The Commission previously noted that "the quicker recovery of stolen vehicles may translate to fewer VLU tracking transmissions over an extended time period, thus reducing the use of the SVRS frequency." *New Services R&O* at ¶ 30.

While the activation command duty cycle will be longer, the total time over which the activation commands will be sent will be less than under the present duty cycle. Sending the signal every 8 seconds rather than every 64 seconds will allow mobile devices to be found more quickly, which means the activation signal will be turned off more quickly.²²

Grant of the waiver will not cause harmful interference to either Federal or Channel 7 operations. With regard to activation from a PAT, the activation command duty cycle is less than what is allowed for active tracking,²³ and the total time for sending activation signals would be less than under the present duty cycle. Thus, the amount of RF energy in the band would not increase. As well, PAT has a significantly shorter range as compared to the base stations,²⁴ and it would be highly unlikely that in any given geographical area more than one search using a PAT would occur at the same time, making the interference potential even smaller. With regard to activations from base stations, the Commission has found that the potential for interference from base stations to broadcasters is mitigated by the fact that the number of base station transmissions is minimal.²⁵ Thus, given that the activation command duty cycle will allow for the activation signal to be turned off more quickly, the impact on Federal and Channel 7 operations should not be increased by grant of the waiver.

²² Supplemental Response at ¶ 3.

²³ Amendment at 2.

²⁴ Waiver Request at 3; Supplemental Response at ¶ 6.

²⁵ New Services R&O at ¶ 33.

CONCLUSION

For the reasons stated herein and in the record of this proceeding, LoJack urges the Bureau to grant waiver of Sections 90.20(e)(6) and Part 2 of the Commission's Rules, as set forth in the Waiver Request.

Respectfully submitted,

LOJACK CORPORATION

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