

In the Matter of)
)
LOJACK CORPORATION)
)
Request for Partial Waiver of Section 90.20(e)(6))
of the Commission's Rules)

⁶ Pursuant to a 2002 rule change that added an alternate duty cycle, newer VLUs incorporate an early warning system that allows LoJack to notify the owner of unauthorized movement of the vehicle. *See* Amendment of Section 90.20(e)(6) of the Commission's Rules to revise the Authorized Duty Cycle on 173.075 MHz, *Report and Order*, WT Docket No. 01-97, 17 FCC Rcd 16938, 16940 ¶ 4 (2002) (*Second SVRS Report and Order*).

can then “home in” on the stolen vehicle.⁷ The Commission licenses state and local public safety entities to operate SVRS base stations.

3. LoJack is required to migrate its operations from 20 kHz bandwidth to 12.5 kHz (“narrowbanding”) by 2019.⁸ In conjunction with the redesign of its system to comply with narrowbanding requirements, LoJack on October 25, 2004, filed a Petition for Rulemaking seeking certain rule changes to assist in transitioning its system to narrowband operations, and to permit greater technical and operational flexibility for SVRS operations.⁹

4. On May 13, 2005, LoJack filed the instant waiver request, which seeks authorization to implement some of the proposals in the Petition for Rulemaking on an interim basis. On June 28, 2005, the waiver request was placed on public notice.¹⁰ Four parties filed comments: LoJack, Motorola, Inc., (Motorola), The Walt Disney Company (Disney) and Intellareturn Corp. (Intellareturn).¹¹ Motorola fully supports LoJack’s waiver request.¹² Disney contends we should deny LoJack’s requested waiver of the duty cycle limits for mobile units, asserting that the waiver would result in interference to its Channel Seven television stations.¹³ Intellareturn urges us “not [to] grant LoJack an additional special waiver to expand beyond recovering stolen vehicles.”¹⁴ Intellareturn asserts that grant of the LoJack waiver request would allow LoJack a new market franchise that would hamper competition and foster an unfair competitive advantage for new LoJack recovery and tracking services.¹⁵

5. *Discussion.* The Commission may grant a waiver of its rules if it is shown that (a) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (b) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.¹⁶ Based on

⁷ *Id.*

⁸ See Amendment of Parts 2 and 90 of the Commission’s Rules to Provide for Narrowband Private Land Mobile Radio Channels in the 150.05-150.8 MHz, 162-174 MHz, and 406.1-420 MHz Bands that are Allocated for Federal Government Use, *Report and Order*, ET Docket No. 04-243, 20 FCC Rcd 5793 (2005); *Erratum*, 20 FCC Rcd 9882 (OET 2005).

⁹ LoJack Corporation Petition for Rulemaking, RM-11135 (filed Oct. 25, 2004) (Petition for Rulemaking). The Petition for Rulemaking was placed on public notice on January 5, 2005. See *Public Notice*, Report No. 2868 (rel. Jan. 5, 2005). Comments were due February 4, 2005. The Commission will address the Petition for Rulemaking in a separate proceeding.

¹⁰ See Wireless Telecommunications Bureau Seeks Comment on LoJack Corporation’s Request for Waiver of 47 C.F.R. § 90.20(e)(6), *Public Notice*, 20 FCC Rcd 11062 (WTB PSCID 2005). Comments were due July 13, 2005.

¹¹ See Comments of LoJack Corporation, filed July 13, 2005; Comments of Motorola, Inc., filed July 13, 2005; Comments of The Disney Company filed July 13, 2005; and Comments of Elliot Klein of Intellareturn, Corp., filed July 14, 2005. We note that Intellareturn filed comments one day after the deadline for filing comments had expired, without also filing a motion for an extension of time. There have been no oppositions filed against acceptance of the late filed comments. Because no party will be prejudiced by acceptance of the comments and because we believe it to be in the public interest to consider the merits of Intellareturn’s comments in reaching our decision, we hereby grant a waiver of our rules to accept the late filed pleading.

¹² See generally LoJack Comments at 1-4; Motorola Comments at 1-2.

¹³ See Disney Comments at 1-4.

¹⁴ See Intellareturn Comments at 3.

¹⁵ *Id.* at 1-2.

¹⁶ See 47 C.F.R. § 1.925(b)(3)(i)-(ii).

the record before us, we believe that LoJack has made the requisite showing for a waiver of some, but not all, of the relevant provisions of Section 90.20(e)(6).

6. Emission Designators. Section 90.20(e)(6) currently limits SVRS operations to F1D or F2D emissions,¹⁷ both of which are analog emissions.¹⁸ This limitation reflects LoJack's original 1988 proposal, which the Commission adopted.¹⁹ LoJack requests waiver of the emission designator limitation in Section 90.20(e)(6) so that it can utilize additional emission modulation schemes, including digital, to enable a more efficient use of the spectrum and its system.²⁰

7. We conclude that waiver of the emission limitation would further the public interest and would not frustrate the rule's underlying purpose. Specifically, we grant a waiver of the emission designator restrictions contained in Section 90.20(e)(6) to allow LoJack's system to use two digital emission designators, D1D and D2D. We believe that the use of these additional emission designators will provide greater efficiencies during LoJack's redesign of its system, both presently and as it transitions to narrowband operations.

8. Duty Cycle. Section 90.20(e)(6) currently limits VLU transmissions to either 200 milliseconds every ten seconds; or 1800 milliseconds every 300 seconds, with a maximum of six messages in any thirty-minute period.²¹ Base station transmissions are limited to one second every minute.²² LoJack requests waiver of the duty cycle limitations,²³ noting that its Petition for Rulemaking proposes elimination of these limits.²⁴ LoJack believes that a waiver would enable it to expand the scope of its public safety and security offerings, and would provide an incentive for continued innovation.²⁵

9. LoJack asserts that a waiver of the duty cycle restrictions would not have an adverse impact on other users of frequency 173.075 MHz,²⁶ and it believes that the potential for interference to TV Channel 7 interference will diminish over time as TV broadcasting signals are transitioned to digital transmissions.²⁷ However, Disney asserts that digital television signals are actually more susceptible to interference from LoJack's operations because the DTV signals have lower energy levels than their analog counterparts, and that the current duty cycle restrictions are serving their intended purpose of limiting potential interference to short periods of time.²⁸ It therefore contends that LoJack "has not

¹⁷ See 47 C.F.R. § 90.20(e)(6).

¹⁸ Emissions are designated by an alphanumeric code that indicates the type of modulation of the main carrier, nature of the signal(s) modulating the main carrier, and the type of information to be transmitted. See 47 C.F.R. § 2.201(b). F1D and F2D are types of frequency modulated telemetry emissions. See 47 C.F.R. § 2.201(e).

¹⁹ See Amendment of Parts 2 and 90 of the Commission's Rules to provide for stolen vehicle recovery systems, *Notice of Proposed Rule Making*, Gen. Docket No. 88-566, 3 FCC Rcd 7195, 7195-96 ¶¶ 4, 14 (1988).

²⁰ See Waiver Request at 4.

²¹ See 47 C.F.R. § 90.20(e)(6). Transmissions may be 200 milliseconds every second while the vehicle is being actively tracked. *Id.*

²² *Id.*

²³ See Waiver Request at 1, 4-5.

²⁴ See Petition for Rulemaking at 9-11.

²⁵ See Waiver Request at 5.

²⁶ See *id.* at 4-5.

²⁷ *Id.*

²⁸ Disney Comments at 3-4.

adequately demonstrated that a change in the duty cycle limits will not result in increased interference.”²⁹

10. We do not believe it appropriate to eliminate the mobile unit duty cycle limits in the context of a request for waiver, notably because, when the Commission added the alternate duty cycle in 2002, it specifically rejected total elimination of the duty cycle limits because of concern over interference to television reception and to other users of frequency 173.075 MHz.³⁰ We therefore maintain the duty cycle limitation pending development of a further record, *e.g.*, in connection with LoJack’s pending Petition for Rulemaking.

11. We believe it appropriate to extend the period in which LoJack’s base stations may transmit, from one second per minute, to three seconds per minute. While LoJack has requested elimination of all SVRS duty cycles, we find that until the development of a fuller record, it is inappropriate to eliminate the base station duty cycle restriction. We note that Disney objects to LoJack’s request for elimination of the duty cycle limit applicable to the operation of the mobile units, but does not mention the duty cycle associated with SVRS base station operation.³¹ In considering the appropriateness of base station duty cycle relief, we are mindful that in order for LoJack to migrate to narrowband operations,³² it will need to operate both wideband SVRS and narrowband SVRS. A potential bottleneck for operation of LoJack’s SVRS systems during the transition appears to be in the operation of the base stations. During that transition period, both narrow and wideband SVRS systems will be operated from the same base stations. Accordingly, the base stations will be expected to handle twice the volume of transmissions of a single system. Without an adjustment to the SVRS base station duty cycle, we are concerned that the limited base station transmission capacity of one second per minute may not be enough to permit timely simultaneous operation of both SVRS systems. Thus, in order to allow the simultaneous operation of both systems, we find that some base station duty cycle relief is needed. Accordingly, we will on our own motion waive the existing one second per minute SVRS base station duty cycle limitation, to allow a SVRS base station duty cycle of three seconds per minute. We find that any increase in potential interference from this small – two seconds per minute – increase in transmission time would be *de minimis*.³³ All other duty cycle restrictions contained in Section 90.20(e)(6) will continue to apply.

12. Cargo and Hazardous Materials. Section 90.20(e)(6) currently provides that SVRS operations “are limited to recovering stolen vehicles and are not authorized for general purpose vehicle tracking and monitoring.”³⁴ LoJack requests a waiver of the requirement that use of SVRS be restricted to recovering stolen vehicles, so that it also may use its system for tracking and recovery of cargo and hazardous materials.³⁵ LoJack posits that if law enforcement may track a vehicle that transports cargo or

²⁹ See *id.* at 3-4.

³⁰ *Second SVRS Report and Order*, 17 FCC Rcd at 16946-47 ¶ 17. The Commission maintained the duty cycle restrictions as a means to allow Federal Government entities and other potential users of SVRS to share the same frequency, and to avert harmful interference to the reception of over-the-air TV Channel 7 broadcasts. Given that the frequency on which LoJack’s equipment operates is shared with the Federal Government, the Commission must ensure that the frequency is available for use by Federal Government agencies, and the current duty cycle limits ensure this capability. Moreover, the duty cycle limits provide protection from the possible harmful interference by LoJack base and mobile stations to over-the-air television Channel 7 broadcast signals.

³¹ See Disney Comments at 2.

³² See note 8 and associated text, *supra*.

³³ See 47 C.F.R. § 90.20(e)(6). We note that SVRS base stations, such as LoJack’s, are required to be located at least 169 kilometers (105 miles) away from a TV Channel 7 station transmitter, or else must perform an interference analysis to limit the potential interference to fewer than 100 residences.

³⁴ *Id.*

³⁵ See Waiver Request at 6.

hazardous waste, it should also be able to continue tracking the cargo once removed from the vehicle.³⁶ LoJack states that grant of the requested waiver would allow law enforcement use of time-proven technology to fight additional types of crime, and to address the risks posed by terrorism and other national security concerns.³⁷

13. We agree with LoJack's analysis, and grant a waiver to permit SVRS tracking and recovery of cargo and hazardous materials. We note that a principal purpose of Section 90.20(e)(6) is to aid law enforcement,³⁸ and this waiver is consistent with that purpose. We believe that grant of this waiver should give law enforcement entities an additional, important tool to address the security concerns associated with transporting of hazardous materials and cargo. We are not persuaded by the objections of Intellareturn.³⁹ We note that this waiver covers only tracking and recovery of hazardous materials or cargo when conducted by law enforcement entities.

14. Licensing by Rule. Currently, LoJack can offer SVRS service only in areas where there is a licensed base station,⁴⁰ because VLUs are not authorized separately from the base station.⁴¹ LoJack requests a waiver to allow VLUs to be authorized on a licensed-by-rule basis.⁴² It states that authorizing VLUs on such a basis would allow LoJack to expand of its coverage area throughout the country by utilizing cellular telephone infrastructure to activate and deactivate VLUs.⁴³ LoJack asserts that "expand[ing] the recovery footprint" in this manner would improve the effectiveness of the system, which would further the public interest.⁴⁴

15. Applications for SVRS base stations require coordination with the Federal Government.⁴⁵ Through this coordination process, the Federal Government remains aware of where it can expect to encounter VLU transmissions. Under LoJack's proposal, however, VLUs could be activated not only within the coverage of base station locations, but anywhere within the United States. We believe that grant of this request could pose a potential problem of frequency coordination with the Federal Government agencies. Given this potential coordination problem, we do not believe that such a departure should be authorized by rule waiver.⁴⁶ Rather, LoJack's proposal is better suited to a formal rulemaking proceeding.⁴⁷

16. *Conclusion and Ordering Clauses.* In summary, we grant LoJack a waiver to permit use of

³⁶ *Id.*

³⁷ *Id.*

³⁸ See *First SVRS Report and Order*, 4 FCC Rcd at 7558 ¶ 7, 7559 ¶ 17, 7561 ¶ 31.

³⁹ See para. 4, *supra*. Contrary to Intellareturn's suggestion, LoJack has not been granted a monopoly over SVRS operations; indeed, frequency 173.025 MHz is available to any entity that wishes to provide SVRS services. See *Second SVRS Report and Order*, 17 FCC Rcd at 16945 ¶ 14 (citing the importance of keeping the frequency available for multiple licensees as a reason for declining to eliminate the duty cycle restriction).

⁴⁰ Currently twenty-two states and the District of Columbia. Waiver Request at 4.

⁴¹ See 47 C.F.R. § 90.20(c)(3) (authorizing frequency 173.075 MHz for base and mobile use).

⁴² See Waiver Request at 4.

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ See 47 C.F.R. § 90.20(e)(6).

⁴⁶ See Schlumberger Technology Corp., *Order*, 14 FCC Rcd 2988, 2990 ¶ 7 (WTB PSPWD 1999).

⁴⁷ See note 9, *supra*.

emission designators D1D and D2D, base station transmissions of up to three seconds per minute, and tracking and recovery of cargo and hazardous materials. Grant of this waiver is subject to any action taken by the Commission with respect to LoJack's pending Petition for Rulemaking.⁴⁸ We deny LoJack's request for a waiver to permit VLUs to operate on a licensed-by-rule basis. Accordingly, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, the waiver request filed by LoJack Corporation on IS HEREBY GRANTED IN PART, to the extent that LoJack Corporation will be permitted (a) to use two additional emission designators, D1D and D2D, for its SVRS; (b) to operate its base stations on a duty cycle of three seconds per minute; and (c) to operate its SVRS for the additional purpose of tracking and recovery of hazardous materials or cargo; however, the waiver request IS OTHERWISE DENIED. This waiver grant is CONDITIONED on compliance with any rules adopted as a result of the pending Petition for Rulemaking, RM-11135. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

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⁴⁸ LoJack acknowledges this condition. *See* Waiver Request at 2.