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October 30, 2007

By Electronic Filing

Ms. Marlene H. Dortch
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

**Re: In the Matter of Amendment of Section 90.20(e)(6) of the
Commission's Rules, WT Docket No. 06-142, RM-11135
Ex Parte Presentation**

Dear Ms. Dortch:

With regard to the above-captioned proceedings, the LoJack Corporation ("LoJack") hereby provides additional information to clarify the record with regard to its needed uplink duty cycle for its vehicle location units ("VLUs").

Background

The present rule, Section 90.20(e)(6), establishes the VLU duty cycle for Part 90 stolen vehicle recovery systems ("SVRS") as follows:

Transmissions from mobiles shall be limited to 200 milliseconds every 10 seconds, except that when a vehicle is being tracked actively transmissions may be 200 milliseconds every second. Alternatively, transmissions from

mobiles shall be limited to 1800 milliseconds every 300 seconds with a maximum of six such messages in any 30 minute period.¹

Although the second sentence reads as though it is merely another duty cycle option, in reality LoJack relies on that part of the rule for an entirely different type of VLU transmission.

LoJack uses the first allowable duty cycle transmission (200 milliseconds every 10 seconds, etc.) to send reply codes, or tracking messages, to allow police to track the location of the vehicle in which the VLU is installed (the “tracking duty cycle”). LoJack uses the second allowable duty cycle (1800 milliseconds every 300 seconds, which is 1.8 seconds every 5 minutes) for its early warning system, sending brief “uplink” transmissions from the mobile VLUs as an alert that a vehicle may have been stolen, and to acknowledge receipt of activation messages in order to reduce unnecessary repetition of messages from the base stations (the “uplink duty cycle”). Each of these “uplink” messages back to the base station lasts 1.8 seconds. Accordingly, under the current rules, LoJack can send only one uplink message every 5 minutes.

LoJack requested in its Petition for Rulemaking that the Commission eliminate its duty cycle requirements for VLUs (as well as for base stations).² In that filing, LoJack specifically called the Commission’s attention to the uplink duty cycle limitation (“[u]nder the current rules, the maximum duty cycle for VLU transmissions is 1800 milliseconds every 300 seconds with a maximum of six such messages in any 30 minute period”) and proposed the elimination of “these limitations,” meaning in part the uplink duty cycle.³ LoJack recognized the Commission’s previous concerns about eliminating the uplink VLU duty cycle, and noted that those concerns “have diminished” while the benefits of eliminating that duty cycle have increased.⁴ For this reason, LoJack explained that it believed it was appropriate for the Commission to “revisit this issue” of eliminating the uplink VLU duty cycle and LoJack provided support for that requested rule change.⁵

The Commission subsequently proposed that, in lieu of eliminating duty cycles, the VLU tracking duty cycle be increased from 200 milliseconds every ten seconds to 400 milliseconds every ten seconds and, for VLUs that are being actively tracked, from

¹ 47 C.F.R. § 90.20(e)(6).

² *In the Matter of Amendment of Section 90.20(e)(6) of the Commission’s Rules Regarding Stolen Vehicle Recovery Systems*, Petition for Rulemaking, RM-11135 (filed Oct. 25, 2004) (“Petition”).

³ *Id.* at p. 9. The other duty cycle specifically mentioned was the base station duty cycle.

⁴ *Id.*

⁵ Petition at 9-11.

200 milliseconds per second to 400 milliseconds per second.⁶ The Commission did not set forth a proposal with regard to the uplink duty cycle.⁷ LoJack essentially concurred in the Commission's treatment of the "tracking" duty cycle, but did not concur with respect to the uplink duty cycle.⁸ Thereafter, LoJack focused its attention on the uplink duty cycle, in particular its relation to the provision of new hazmat and critical cargo tracking and recovery services.⁹

Clarification of Need for VLU Uplink Duty Cycle Rule Change

LoJack hereby clarifies its need with regard to an increased uplink VLU duty cycle to provide its requested new services. As LoJack has stated in previous filings, it requires an increased VLU duty cycle to provide additional services such as tracking cargo and hazardous materials. This increased duty cycle is needed for its uplink transmissions. For each new service, LoJack will need to send a different reply code identifier from what it uses for stolen vehicle recovery operations. This requires sending an increased amount of uplink information – both because there will be more information to be sent and because some of the new information will use more bits. Given the VLU power limits, LoJack requires additional uplink duty cycle time to send this increased amount of information.

For example, LoJack's motion alert uplink message presently in use sends 39 bits of payload to encode the necessary information, which can be sent in a single 1800 millisecond (1.8 second) transmission. To use GPS information to provide police with the exact longitude and latitude of a stolen vehicle, hijacked hazardous materials or other dangerous cargoes, however, the uplink message will require sending 124 bits. Therefore, LoJack needs a longer uplink transmission time, as it will need to send at least four successive uplink messages of 1.8 seconds duration to the base station, a duty cycle of 7200 milliseconds every 300 seconds. Without the requested rule change,

⁶ *In the Matter of Amendment of Section 90.20(e)(6) of the Commission's Rules*, Notice of Proposed Rulemaking at ¶¶ 17-18, WT Docket No. 06-142 (rel. July 24, 2006) ("NPRM").

⁷ *Id.*

⁸ *In the Matter of Amendment of Section 90.20(e)(6) of the Commission's Rules*, Comments of LoJack Corporation at pg. 9, WT Docket No. 06-142 (Sept. 22, 2006) ("LoJack Comments").

⁹ See *Letter to Marlene H. Dortch from Henry Goldberg, re In the Matter of Amendment of Section 90.20(e)(6) of the Commission's Rules*, WT Docket No. 06-142, RM-11135, *Ex Parte Presentation* at pgs. 2 and 5 (March 26, 2007) (noting that, "[l]iberalizing the SVRS duty cycles . . . will make it possible for LoJack to support additional public safety services" by, for example, allowing LoJack to "use extra transmit time to send additional information to police"); see also *Letter to Marlene H. Dortch from Henry Goldberg re In the Matter of Amendment of Section 90.20(e)(6) of the Commission's Rules*, WT Docket No. 06-142, RM-11135, at 2 (filed Oct. 5, 2007) (explaining that LoJack would need to send additional 1.8 second uplink messages to provide additional information to law enforcement).

LoJack would not be able to send GPS location coordinates to law enforcement. For this reason, LoJack clarifies that it requires a duty cycle of 7200 milliseconds every 300 seconds with a maximum of six such messages in any 30 minute period.

LoJack believes that the record contains sufficient notice of its request. For example, in LoJack's *ex parte* of October 5, 2007, LoJack stated that it "would need to be able to send at least four messages of 1.8 seconds each to [provide these additional services], but the present uplink duty cycle rule does not allow for such transmissions."¹⁰ Here, LoJack makes clear that it specifically requires a change to the uplink VLU duty cycle rule in order to provide new services to law enforcement and public safety entities.

Please direct questions concerning this matter to the undersigned.

Sincerely,



Henry Goldberg
Attorney for the LoJack Corporation

cc: Zenji Nakazawa
Tom Eng
Bruce Romano
Julius Knapp

¹⁰ Letter to Marlene H. Dortch from Henry Goldberg re In the Matter of Amendment of Section 90.20(e)(6) of the Commission's Rules , WT Docket No. 06-142, RM-11135, at 2 (filed Oct. 5, 2007). Interested parties, moreover, have had ample opportunity to comment on changes to the VLU duty cycle, in this and related proceedings. See *Petition for Rulemaking and In the Matter of LoJack Corporation, Request for Partial Waiver of Section 990.20(e)(6) of the Commission's Rules, Request for Partial Waiver of Section 90.20(e)(6), DA 05-1782* (filed May 13, 2003).