Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)
	)
SBA Communications Corporation and	)
International Tower Lighting, LLC Request for	)
Waiver of 47 C.F.R. § 17.47(b)	)
	)

MEMORANDUM OPINION AND ORDER

Adopted: February 19, 2014 **Released: February 19, 2014**

By the Associate Chief, Wireless Telecommunications Bureau:

I. INTRODUCTION

1. This *Memorandum Opinion and Order* addresses the request of SBA Communications Corporation ("SBA"), and International Tower Lighting, LLC ("ITL") for waiver of Section 17.47(b) of the Commission's Rules, 47 C.F.R. § 17.47(b). Section 17.47(b) provides that the owner of any antenna structure that is registered with the Commission and has been assigned lighting specifications pursuant to Part 17 "[s]hall inspect at intervals not to exceed 3 months all automatic or mechanical control devices, indicators, and alarm systems associated with the antenna structure lighting to insure that such apparatus is functioning properly."[1] In the *SBA/ITL Waiver Request*, SBA estimated that it then used the ITL Tower Light Monitoring Systems (the "MON Series Systems") at approximately 4,500 of its sites and expected to add a significant number to this total by the end of 2012, and as a result, would incur significant expense annually complying with the quarterly inspection requirement for the towers subject to this petition.[2]

2. SBA and ITL argue that the quarterly inspections of antenna structure lighting monitoring systems mandated by Section 17.47(b) of the Rules have been rendered unnecessary for towers that employ the MON Series Systems because of technological advancements associated with those systems.[3] SBA and ITL ask the Commission to waive the rule to permit annual inspections instead for antenna structures that use this system. For the reasons set forth below, we grant SBA its request for relief from its obligation as tower owner under Section 17.47(b) of the Commission's Rules to perform quarterly inspections of the monitoring systems on these towers, and instead permit it to perform annual inspections. In addition, while we decline to grant ITL a waiver on behalf of its clients,[4] we establish an expedited process by which other users of the MON Series Systems may request and obtain waivers of their obligation to perform quarterly inspections under Section 17.47(b).

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[1] 47 C.F.R. § 17.47(b).

[2] In the Matter of SBA Communications Corporation and International Tower Lighting, LLC Request for Waiver of 47 C.F.R. § 17.47(b), Request for Waiver, dated November 8, 2012, and filed November 14, 2012 (*SBA/ITL Waiver Request*) at 5, 10.

[3] *Id.* at 6.

[4] ITL is not subject to 47 C.F.R. § 17.47(b). *See* para. 5, *infra*.

II. BACKGROUND

3. The Commission and the Wireless Telecommunications Bureau have previously granted waivers of Section 17.47(b) to antenna structure owners who demonstrated that they were operating safe and reliable monitoring systems that provide sufficiently robust monitoring of the control devices, indicators and alarm systems so as to render quarterly inspections unnecessary.[5] The Airspace and Rules Group of the Federal Aviation Administration (FAA) has stated that it is not opposed to such waivers "provided the applicant can demonstrate a safe and reliable automatic monitoring system with tracking mechanisms to evaluate the remote monitoring technology."[6]

4. SBA and ITL filed their instant waiver request on November 14, 2012, and, pursuant to requests by the Wireless Telecommunications Bureau, supplemented it on March 26, 2013, and again on January 10, 2014.[7] Both ITL, on behalf of its clients, and SBA, on its own behalf, seek the same relief granted to ATC, GSI, TowerSentry, and Insite. SBA and ITL assert in their request that the features and functionality of the MON Series Systems compare favorably to the Eagle Monitoring System (ATC), the TowerSentry Monitoring System (TowerSentry), the HARK Monitoring System (GSI), and the RMS System (Insite) and therefore warrant granting their Request for Waiver.[8] Also in support, SBA and ITL attach to their request exhibits describing relevant features of the MON Series Systems.[9] We will consider the requests of SBA and ITL separately in this Order.

III. DISCUSSION

5. Section 1.925 of the Commission's Rules provides that, with respect to wireless telecommunications services, the Commission may grant a request for waiver if it is shown that: "(i) 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 (ii) 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."[10] As discussed below, we grant a waiver to SBA because we find that application of the quarterly inspection requirements of Section 17.47(b) to the towers in question is not necessary to serve the underlying

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[5] *See, e.g.,* In the Matter of Requests of American Tower Corporation and Global Signal, Inc., to Waive Section 17.47(b) of the Commission's Rules, WT Docket No. 05-326, *Memorandum Opinion and Order*, 22 FCC Rcd 9743 (2007); Petition of Optasite Towers L.L.C. for Waiver of Section 17.47(b) of the Commission's Rules, *Memorandum Opinion and Order*, 22 FCC Rcd 18456 (WTB 2007) (*Optasite Waiver Order*); In the Matter of Crown Castle USA Inc. Request for Waiver of 47 C.F.R. § 17.47(b), *Memorandum Opinion and* Order, 22 FCC Rcd 21881 (WTB 2007) (*Crown Castle Waiver Order*); In the Matter of Request of Global Tower LLC for Waiver of 47 C.F.R. § 17.47(b), *Memorandum Opinion and Order*, 23 FCC Rcd 16531 (WTB 2008) (*Global Tower Waiver Order*); In the Matter of TowerSentry LLC Request for Waiver of 47 C.F.R. § 17.47(b) and Joint Petition of Diamond Communications LLC and Diamond Towers LLC for Waiver of 47 C.F.R. § 17.47(b), *Memorandum Opinion and Order*, 24 FCC Rcd 10274 (WTB 2009) (*TowerSentry/Diamond Waiver Order*); In the Matter of Petition of Insite Towers LLC and TowerCo Assets LLC and TowerCo II LLC for Waiver of 47 C.F.R. § 17.47(b), *Memorandum Opinion and Order*, 25 FCC Rcd 14542 (WTB 2010) (*Insite Waiver Order*).

[6] Brief Comment of Office of Airspace and Rules, FAA, WT Docket No. 05-326, filed December 4, 2006.

[7] *See* Supplemental Support of Request for Waiver (March 26, 2013) (*SBA/ITL Supplement*); Supplemental Support of Request for Waiver (January 10, 2014) (*SBA/ITL Supplement II*). This additional information was provided in response to requests by the Wireless Telecommunications Bureau's Spectrum and Competition Policy Division via telephone on February 12, 2013, and December 17, 2013.

[8] *SBA/ITL Waiver Request* at 6.

[9] *SBA/ITL Waiver Request,* Exhibits 1-5.

[10] 47 C.F.R. § 1.925(b)(3).

purposes of the rule, and grant of the waiver is in the public interest. Based on the evidence presented, strict application of the rule to SBA would be unduly burdensome and contrary to the public interest. Because ITL is a tower monitoring company, and not an "owner of any antenna structure," it is not subject to Section 17.47(b) of the Commission's Rules. We do not find that it would serve the public interest to grant to ITL a waiver of that rule on behalf of its unspecified current and future customers. Instead, we extend relief to ITL's customers by establishing an expedited waiver process as described below.

6. The ITL MON Series Systems are comprised of the MON Series controller ("MON"), Windows-based Auto Dialer Pro monitoring software ("ADP"), and a Network Operations Control Center ("NOCC").[11] SBA and ITL describe the MON Series Systems as safe, reliable, and having characteristics similar to the systems used by parties that were previously granted waivers.[12] SBA and ITL state that the systems employ sophisticated, self-diagnostic functions that are sufficiently robust so as to make unnecessary quarterly inspections to ensure that the control devices, indicators, and alarm systems on the towers are operating properly.[13] Specifically, SBA and ITL maintain that the MON Series Systems provide the functional equivalent of a continuous inspection of control devices on all towers they monitor, and as a result, users of the MON Series Systems are alerted to actual and potential problems within minutes or at most within 24 hours.[14] In support of these contentions, SBA and ITL describe the following features of the MON Series Systems:

(1) *Alarm notification.* ITL MON Series Systems allow for an unlimited number of customizable alarms, depending on the needs of the tower owner. At a minimum, each system is preprogrammed with the following alarms: Major Alarms including Strobe Alarm, Red Strobe Alarm, White Strobe Alarm, Beacon Alarm, Red LED Beacon Alarm, Photocell/PEC Alarm, Day/Night Alarm, Power Fail Alarm, Power Lost Alarm, Flasher Failure Alarm, Day Intensity Alarm, and Night Intensity Alarm; and Minor Alarms including Sidelight Alarm and Low Battery Alarm.[15] The ITL MON Series Systems also have alarms for beacon and strobe communication failure, filter failure, and site communication failure.[16] The conditions requiring an alarm are first detected by the MON, which is connected to the equipment on the tower corresponding to each alarm. The alarms are broken into two groups, as indicated above: (l) major alarms requiring Notices to Airmen ("NOTAMs"); and (2) minor alarms not requiring a NOTAM. All alarms are transmitted from the MON to the NOCC. The NOCC then sends an acknowledgment to the MON that transmission of the alarm was successful. If acknowledgment is not received, the MON will repeatedly retransmit the alarm to the NOCC until the acknowledgment is received.[17] Within 30 minutes, an NOCC specialist will analyze the alarm and file a NOTAM if appropriate. Any filed NOTAM will include the time, date, and initials of NOCC personnel. In the event the alarm condition involves failure to complete a mode transition at a site, in addition to transmitting an alarm to the NOCC, the MON will

[11] *SBA/ITL Waiver Request* at 6.

[12] *Id.* at 6, 10.

[13] *Id.* at 10.

[14] *Id.* at 5-6, 8, Exhibit 3, ¶2.

[15] *SBA/ITL Waiver Request* at 6.

[16] *SBA/ITL Supplement* at 1-2.

[17] If an acknowledgment is never received, the MON unit will continue to send alarm messages to the NOCC. If this were to happen, it would most likely be due to a communication problem, which would be realized during the daily verification of connectivity. At that time, a NOTAM would be filed for a communication error. *See SBA/ITL Supplement II* at 1.

turn the lighting controller to the lighting system's highest intensity (i.e., day mode for white or dual systems, and night mode for red only systems). Additional capability in the MON allows monitoring of generator activity and any other condition that can be monitored through a dry contact point (e.g., door/gate opening and copper theft).[18]

(2) *24-hour polling.* The ADP software automatically dials all sites within the database every 24 hours to verify the connectivity and alarm status of each MON. Should a problem exist, remote interrogation of the site via ADP software isolates the problem. If the problem cannot be resolved within thirty minutes, a NOTAM is opened and measures to restore operation are initiated.[19]

(3) *Manual contact.* The ADP software allows NOCC specialists to manually connect to each MON to check alarms, configurations, and signal strength, and to create alarms and transfer modes remotely. This enables the NOCC specialist to verify correct operation of the lighting and monitoring systems at any time.[20]

7. The NOCC that SBA uses as part of the MON Series Systems is staffed with trained personnel capable of responding to alarms 24 hours per day, 365 days per year.[21] SBA's primary control center is located in its corporate office in Boca Raton, Florida. The building is hurricane rated, operates with a seven-day fuel supply, and is served by telecommunication and data networks on dual carrier fiber rings in and out of the building.[22] The SBA NOCC has a staff of 11 full time specialists and one manager, who staff the NOCC at all times with up to four, but not fewer than two specialists.[23] Significantly, SBA constantly monitors the weather and has the ability to relocate its control center to similarly constructed back-up control centers in Roswell, Georgia and St. Louis, Missouri.[24] The ADP software facilitates automated daily connection, manual connections, alarm reception, NOTAM logging, logging of all transactions between MON units and NOCC specialists, daily status e-mails to customers, and immediate e-mails to customers in the event of a problem, including but not limited to when a NOTAM is issued. The ADP software was specifically engineered to work with the MON designed by ITL. The ADP software utilizes client/server architecture that allows multiple users to simultaneously access historical data, connect to sites in real time, view incoming alarms and perform database operations. Additionally, the ADP software allows for remote control of the intensity mode (day/night) and other features, enabling troubleshooting and diagnostics. The ADP software's graphic displays report the status of each site.[25]

8. Further, SBA's primary and backup NOCC servers are equipped with redundant hardware, including power supplies, fans, and disk drives. If any of these components fail, replacements are on site for repair with minimal downtime. If the primary SBA NOCC server fails completely, the backup server is enabled and all alarm traffic will be routed to this server until the main server can be repaired or replaced. Power is electronically monitored and disruption is immediately communicated to NOCC personnel. SBA also utilizes a backup generator with a reserve fuel tank, that can operate for up

[18] *SBA/ITL Waiver Request* at 7-8.

[19] *Id.* at 8; *SBA/ITL Supplement* at 1, 2; *SBA/ITL Supplement II* at 1.

[20] *SBA/ITL Waiver Request* at 8.

[21] *Id.* at 6; *SBA/ITL Supplement* at 2.

[22] *SBA/ITL Waiver Request* at 4.

[23] *SBA/ITL Supplement* at 4.

[24] *SBA/ITL Waiver Request* at 4; *SBA Supplement* at 4.

[25] *SBA/ITL Waiver Request* at 8-9.

to 8 days. Monthly testing of all server connections and Uninterruptible Power Supply ("UPS") systems is conducted to verify proper function. In addition, SBA has created a Disaster Recovery ("DR") system located offsite in Orlando, Florida, where additional server equipment is located and backed up daily. In case of a catastrophic event at SBA's corporate headquarters - hurricane, earthquake, or other severe weather situation - all alarm traffic would be routed through the DR facility and the SBA NOCC would be relocated to a safer part of the country, and all alarms would be remotely monitored from there.[26]

9. ITL also maintains a NOCC for those tower owners that do not have monitoring facilities.[27] ITL's NOCC is similarly staffed with specialists who monitor the site status reports and incoming alarms. ITL's NOCC specialists are educated on the FCC and FAA regulations and procedures that govern filing, extending, and clearing of NOTAMs. They are also trained for troubleshooting and resolving monitoring and lighting issues on various manufacturers' lighting equipment. Additionally, in the event of an alarm at a tower monitored through ITL's NOCC, the NOCC supervisors are notified via e-mail to ensure that the proper action is taken and a NOTAM is issued if necessary.[28] ITL's NOCC also includes redundant hardware, a backup server for potential rerouted alarm traffic, and power monitoring. Monthly testing of the server connections and UPS systems is also conducted to verify proper function.[29] Further, ITL's NOCC includes remote backup workstations with independent network connectivity, an auxiliary generator that provides indefinite power to the NOCC, and a backup system at a remote location with specific procedures to follow in the event of a catastrophic failure.[30]

10. As discussed above, the MON units activate alarms when the self-diagnostic functions determine that there is a lighting malfunction. Additional features of these devices include programmable delays to prevent false alarms, alphanumeric labeling of input and output circuits to remove confusion as to the origin of alarms, and the capability to handle a variety of backhaul options for alarm delivery. The monitoring devices include internal battery backup to permit alarm transmission when a power outage occurs at the site.[31]

11. The technology that the ITL MON employs is similar to that exhibited by the monitoring systems employed by ATC, GSI, Optasite, Crown Castle, Global Tower, Diamond, and Insite, which were each granted waivers based on the efficacy of that technology. These systems are similar in that they all have continuous and permanent two-way links between tower sites and the response center; timely reporting of potential problems; continuously staffed response centers; 24-hour polling of both lighting and communications systems; on demand interrogation capabilities; backup response centers; and essentially uninterrupted communications between the response center and the towers during power outages.[32]

12. ITL and SBA state that, particularly for towers in remote locations, quarterly inspection imposes a substantial and unnecessary resource burden.[33] SBA estimates that it spends approximately

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[26] *SBA/ITL Supplement* at 3.

[27] Customers utilizing ITL's MON Series Systems, such as SBA, that wish to monitor for themselves can do so by utilizing ITL's Auto Dialer Pro software at their own NOCC. *SBA/ITL Supplement II* at 2.

[28] *SBA/ITL Waiver Request* at 9.

[29] *SBA/ITL Supplement* at 3.

[30] *SBA/ITL Waiver Request* at Exhibit 2, Exhibit 3, ¶1.

[31] *SBA/ITL Waiver Request* at 8.

[32] *Id.* at 6.

[33] *Id.* at 5, 10.

$761,640 annually conducting quarterly inspections.[34] Further, ITL and SBA assert that since being introduced to the industry, the MON Series Systems have a flawless record of performance. From the inception of ITL's NOCC in December of 2010 until November 2012, 159 notices to airmen were properly triggered by ITL MON Series Systems, with zero false positives and zero known failures to issue a NOTAM when needed. These notices were triggered immediately after the lighting malfunction occurred, as opposed to the up to three-month delay that could have resulted from relying on quarterly inspections under Section 17.47(b).[35]

13. For the reasons cited by the Commission in the *ATC/GSI Waiver Order*, and by the Bureau in subsequent orders, we conclude, based upon the uncontested evidence submitted in the record by ITL and SBA, that the *SBA/ITL Waiver Request* establishes that quarterly inspections are unnecessary for SBA's towers monitored by the MON Series Systems.[36] We conclude that SBA is operating a safe and reliable monitoring system with tracking mechanisms to evaluate the remote monitoring technology, and that features of this system provide sufficiently robust monitoring of the control devices, indicators and alarm systems so as to render quarterly inspections unnecessary. Indeed, such advanced technology provides the benefits of more rapid response where there has been a lighting failure, and thus the public interest is served with respect to aircraft safety. In addition, granting waivers to SBA and other tower owners using the MON Series Systems will save them hundreds of thousands of dollars annually that are unnecessarily spent on quarterly inspections where they have deployed this advanced technology.

14. We therefore grant SBA's waiver request. For other tower owners using the MON Series Systems, we will grant, in an expedited manner, waivers upon submission and review of a streamlined petition attesting that they use the MON Series Systems as described herein. Specifically, any waiver applicant shall submit a certification that: (1) its towers are monitored by the MON Series Systems under the process described in this order; and (2) it maintains a facility to receive notifications of failures from the MON Series Systems, which will enable the tower owner to carry out its responsibilities under Part 17 of the Commission's rules. The certification shall be signed, under penalty of perjury, by a company officer (or partner, sole proprietor or similar person able to act on behalf of the tower owner) with knowledge of the underlying facts. To ensure timely processing, waiver requests should also be e-mailed to part17@fcc.gov.

IV. CONCLUSION

15. For the reasons discussed above, we waive Section 17.47(b) to allow SBA, for its towers monitored using the MON Series Systems, to conduct inspections required by that section on an annual, rather than a quarterly, basis. We further establish an expedited process for other users of the MON Series Systems to obtain similar waivers. The MON Series Systems reliably diagnose problems, including any failures of control devices, indicators and alarm systems, within real time, and therefore render strict application of the rule unnecessary to serve its underlying purpose. Moreover, our action will relieve SBA and potentially other users of the MON Series Systems of the burden of performing unnecessary quarterly inspections. In addition, granting SBA a waiver, as well as implementing an expedited waiver process for other tower owners that employ the MON Series Systems, will further encourage tower owners to invest in state-of-the-art technologies so that they too will become capable of continuous monitoring of both their lighting systems and control devices.

16. We note that the Commission has released a Notice of Proposed Rulemaking seeking

[34] *SBA/ITL Supplement* at 2.

[35] *SBA/ITL Waiver Request* at 5-6.

[36] *ATC/GSI Waiver Order*, 22 FCC Rcd at 9747, 9748, ¶¶ 11, 17; *Optasite Waiver Order,* 22 FCC Rcd at 18456, ¶ 8; *Crown Castle Waiver Order,* 22 FCC Rcd at 21884, ¶ 9; *Global Tower Waiver Order*, 23 FCC Rcd at 16531, ¶ 9.

comment on proposed changes to part 17 of the Commission's rules and this determination is subject to any rule changes that the Commission may promulgate in that proceeding.[37]

V. ORDERING CLAUSE

17. Pursuant to Sections 4(i), 303(q), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(q), 303(r), and pursuant to Sections 0.131, 0.331, and 1.925 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331, 1.925, the Request for Waiver filed by SBA and ITL IS GRANTED with respect to SBA, AND DENIED with respect to ITL.

FEDERAL COMMUNICATIONS COMMISSION

Jane E. Jackson
Associate Chief, Wireless Telecommunications Bureau

[37] In the Matter of Amendments to Modernize and Clarify Part 17 of the Commission's Rules Concerning Construction, Marking and Lighting of Antenna Structures, RM 11349, *Notice of Proposed Rulemaking*, 25 FCC Rcd 3982, 75 FR 28517 (2010).