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FEDERAL COMMUNICATIONS COMMISSION
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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 2 and 15 of the Commission's Rules Regarding Spread Spectrum Transmitters	)))	ET Docket No. 96-98 RM-8435, RM-8608, RM-8609

REPLY COMMENTS OF TELETRAC LICENSE, INC.

Teletrac License, Inc. ("Teletrac") hereby submits its reply comments in the above-captioned proceeding. As shown below, the comments in this proceeding demonstrate that the Commission should adopt rules that are consistent with Teletrac's proposals in its initial comments.

I. SPREAD SPECTRUM DEVICES SHOULD BE PERMITTED TO HOP AMONG FEWER THAN 50 CHANNELS — BUT ONLY IF THEY AVOID USING CHANNELS IN THE MULTILATERATION LMS SUB-BANDS.

In its initial comments, Teletrac agreed that the Commission's proposal to allow frequency-hopping spread spectrum users in the 902-928 MHz band to hop among a smaller number of frequencies could significantly reduce potential interference with multilateration Location Monitoring Service ("LMS") licensees. But, as Teletrac pointed out, hopping among a smaller number of frequencies also could have precisely the opposite effect unless such hopping is largely restricted to frequencies outside the sub-bands used by multilateration LMS

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licensees. If reducing the number of frequencies meant that a signal hopped primarily *within* the passbands of LMS receivers, the result would be *more* interference, notwithstanding the reduced power levels proposed by the Commission. Accordingly, Teletrac urged the Commission to adopt rules that allow spread spectrum users to hop among fewer than 50 channels, but only if such users operate with no more than 50 percent of their total utilized bandwidth within the three sub-bands designated for multilateration LMS services.[1]

Teletrac was not the only party to support such limitations on spread spectrum devices that use fewer than fifty hopping channels. Notably, the Ericsson Corporation agrees that any reduction in the number of channels used by frequency-hopping spread spectrum users should be accompanied by restrictions on use of channels within the multilateration LMS sub-bands. Indeed, it proposes that "the rules should be amended to explicitly require frequency hopping systems to use spectrum which is not used by LMS systems."[2]

Moreover, preventing frequency hopping systems from concentrating their operations in the LMS bands is consistent with the intent of the proposed rules. Indeed, based on the comments of other parties in this proceeding, the restrictions proposed by Teletrac should cause no problems for frequency-hopping spread spectrum users. The principal proponents of the Commission's proposal confirm that the purpose of allowing hopping among a smaller number of frequencies is specifically to enable spread spectrum users to *avoid* the multilateration LMS sub-bands. For instance, SpectraLink emphasizes that "frequency

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1/ The 50 percent standard is based on the current potential usage of the multilateration LMS band by frequency hopping systems.

2/ Comments of The Ericsson Corporation at 3.

avoidance is the preferred method of preventing interference in the case of collocated operation of multiple radio systems" and that "the Commission's proposed rule changes will . . . permit a frequency hopping device to avoid, at a minimum, 12.5 MHz of spectrum, thus permitting peaceful co-existence with up to two multi-lateration LMS operators in a single metropolitan area."[3]

Similarly, Apple Computer, Inc. supports the Commission's proposal to allow spread spectrum transmitters to hop on only 25 channels because "[a]s a result, systems with the maximum allowed bandwidth (500 kHz) would be able to *avoid most of the frequencies protected for wideband multilateral operations* and with a back-off from 500 to 480 kHz could utilize only 12 MHz and thereby *avoid the multilateration channels altogether.*"[4] Digital Wireless Corporation and ADTRAN, Inc., in supporting the proposal, also both recognize that its principal purpose is to "minimize cross interference with the new Part 90 Location and Monitoring Service."[5]

It therefore seems likely that responsible frequency-hopping spread spectrum users would, if allowed to hop among as few as 25 channels, deliberately seek channels outside the multilateration LMS sub-bands, whether or not they were required to do so. With respect to these users, Teletrac's proposed restriction may be unnecessary -- but it also would cause them no harm if adopted. The restriction is, however, essential to ensure that Part 15 users that are less aware of or concerned with problems of interference do not, carelessly or

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3/ Comments of SpectraLink Corporation, Inc. at 3-4.

4/ Comments of Apple Computer, Inc. at 3 (emphasis added).

5/ Comments of Digital Wireless Corporation, Inc. at 2; Comments of ADTRAN, Inc. at 4.

otherwise, use the new flexibility proposed by the Commission to increase rather than reduce potential interference with multilateration LMS licensees

II. THE "SAFE HARBOR" PRESUMPTION OF NON-INTERFERENCE SHOULD NOT AUTOMATICALLY APPLY TO SPREAD SPECTRUM DEVICES THAT HOP AMONG FEWER THAN 50 CHANNELS AND UTILIZE CHANNELS IN THE MULTILATERATION LMS SUB-BANDS.

Teletrac also urged the Commission to adopt a rule addressing the impact of any new rules on the "safe harbor" presumption that Part 15 devices do not interfere with multilateration LMS operations.[6] While frequency-hopping spread spectrum users that comply with the current Part 15 rules should continue to be presumed not to interfere with multilateration LMS licensees in the 902-928 MHz band, the "safe harbor" presumption should not automatically apply to spread spectrum users that hop among fewer than 50 channels pursuant to any *revised* Part 15 rules that might be adopted in this (or any other) proceeding.

While common sense dictates that the safe harbor should not automatically be extended, some commenters oppose any recognition that the safe harbor might not be appropriate if the Commission modifies its Part 15 requirements. Several parties take issue with the Commission's suggestion that rules adopted in the present proceeding may be subject to modification based on any action that the Commission takes on pending petitions for reconsideration in its LMS rulemaking proceeding. They contend that the Commission has no authority to change the Part 15 rules after they are adopted without another rulemaking

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6/ Comments of Teletrac at 6.

proceeding and that, in any event, there is no obvious linkage between the Part 15 spread spectrum rules at issue in this proceeding and the Part 90 LMS rules at issue in the other proceeding.[7] These parties are incorrect.

First, unless the "safe harbor" rule in Part 90 is construed to protect only those Part 15 devices that comply with the Part 15 rules as they now exist (as opposed to any new or amended Part 15 rules that might be adopted), Part 90 and Part 15 *are* inextricably linked. Simply put, any change in the Part 15 rules will affect the extent to which Part 90 licensees are subject to potential interference. Thus, the presumption that was adopted in the LMS proceeding — based on the current Part 15 rules — should not necessarily apply to devices that operate under modified rules. There are two potential solutions to this problem: (1) the Commission can use this proceeding to clarify that frequency hopping spread spectrum systems that hop among fewer than 50 channels while still using channels in the multilateration LMS sub-bands are not eligible for the safe harbor; or (2) the Commission can, in its reconsideration of the LMS proceeding, clarify that the safe harbor presumption will apply only to devices that continue to operate pursuant to the currently existing rules. Either alternative will avoid unreasonably enlarging the safe harbor beyond its current extent. If, however, the Commission cannot ensure in this proceeding that the safe harbor presumption will not apply to devices that operate under the modified rule, then it should not adopt its proposed modification at this time.

7/ *See, e.g.*, Comments of Wireless Communications Section of the Telecommunications Industry Association at 5; Comments of Metricom, Inc. at 7-9; Comments of the Part 15 Coalition at 7.

Second, there is no procedural bar to the Commission changing rules in either Part 15 or Part 90 in this proceeding. The notice requirements for rulemakings under the Administrative Procedure Act relate to the substance of the proposed rules, not to the purely ministerial question of which rules are modified to effect the proposed changes.[8/] In this case, the Commission has provided more than sufficient notice both by proposing to modify its spread spectrum rules and by informing interested parties of the interaction between this proceeding and the LMS proceeding. Thus, the Commission is fully entitled to consider modifications to the safe harbor either in this proceeding or in the LMS proceeding where the safe harbor was adopted initially.

CONCLUSION

For the foregoing reasons, and for the reasons set forth in Teletrac's initial comments, the Commission should adopt its proposal to allow frequency hopping among fewer than 50 channels at reduced power levels -- but only if it (1) restricts such hopping in the multilateration LMS sub-bands at least to the extent proposed in our initial comments, and (2)

8/ *See* 5 U.S.C. 553(b)(3) (agencies required to give notice of "either the terms or substance of the proposed rule or a description of the subjects and issues involved").

makes clear that devices that hop among fewer than 50 channels and use channels in the multilateration LMS sub-bands will not automatically be protected by a presumption of non-interference.

Respectfully submitted,

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