In the Matter of  

Terrestrial Use of the 2473-2495 MHz Band for Low-Power Mobile Broadband Networks; Amendments to Rules for the Ancillary Terrestrial Component of Mobile Satellite Service Systems

IB Docket No. 13-213
RM-11685

COMMENTS OF THE ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

The Association of Home Appliance Manufacturers ("AHAM") hereby submits these comments in the above-referenced proceeding regarding the proposed modification of the Commission’s rules to provide Globalstar, Inc. ("Globalstar") with authority to deploy a low-power broadband network using its licensed Mobile Satellite Service ("MSS") spectrum at 2483.5-2495 MHz and spectrum designated for, among other uses, Industrial, Scientific and Medical ("ISM") operations at 2473-2483.5 MHz. As it has previously stated, AHAM appreciates the need for additional spectrum for the provision of mobile broadband services. However, AHAM reiterates its request that the Commission clarify that, if Globalstar is permitted to use the spectrum it targets for a Terrestrial Low Power Service ("TLPS"), it has no superior rights over existing users of the band. Instead, the FCC should affirm that Globalstar is


obligated – like any other user of the 2.4 GHz band – to accept interference from the ISM
devices that operate there.

I. BACKGROUND

AHAM is the trade association of home appliance manufacturers with members from the
major, portable, and floor care home appliance industries. AHAM members contribute to the
multi-billion dollar home appliance industry in both the U.S. and Canada, with the factory
shipment value of AHAM member products amounting more than $25.3 billion annually. Of its
147 members, 30 are in the major appliance division, with about 12 of those companies directly
involved in the marketing and sale of, among other products, induction and microwave ovens.
These appliances – which have achieved near ubiquity in the United States – are considered ISM
devices under the FCC’s rules.

Globalstar proposes to operate a TLPS network by leveraging its licensed spectrum in the
2483.5-2495 MHz portion of the S band with a portion of the adjacent ISM band at 2473-2483.5
MHz. Globalstar indicates that it is capable of rapidly deploying its proposed network, which it
says would encourage wireless broadband investment and pave the way for creating additional
broadband spectrum. AHAM understands the important goal that Globalstar proposes to pursue
but urges the Commission to consider established spectrum policies and adopt a regulatory
approach that will not inhibit ISM technologies.

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3/ See NPRM ¶¶ 1-6; Globalstar Petition at 4-7. The ISM band extends from 2400-2500 MHz. See
47 C.F.R. § 18.301. Globalstar also requested that the Commission initiate a rulemaking that would
permit it to deploy a higher-power terrestrial service using LTE technology in both the 2483.5-2495 MHz
S band and the 1610-1617.775 MHz L band. The FCC is not yet seeking comment on that proposal. See
NPRM ¶ 2.

4/ NPRM ¶ 4 (citing Globalstar Petition at 23).
II. COMMENTS

AHAM does not oppose the Commission adopting regulations that would permit use of the ISM band by Globalstar for the provision of TLPS, but urges the Commission to make clear that Globalstar’s operations – if deployed – will neither have interference protection from nor superior status over existing devices operating in the 2.4 GHz ISM band. Included within the category of devices operating in that spectrum band are the 96.8 million microwave ovens presently in operation in the U.S. The U.S. Census Bureau reports that 97 percent of homes in the U.S. have a microwave, making their ownership “nearly universal.” As a result of the near ubiquity of these appliances, any change in the regulatory framework regarding operations in the 2.4 GHz band could have significant effects on how these appliances are designed and operated, which would affect both AHAM members and consumers.

It is well established that devices operating within the 2400-2500 MHz band are required to accept interference received from Part 18 devices that operate there. More specifically, the Commission has noted that radio services operating within the 2400-2500 MHz band “must accept harmful interference that may be caused by ISM devices, which include a large number of microwave ovens commonly used in households.” The Commission reiterated this established spectrum policy in the NPRM, stating that Globalstar is not entitled to superior rights or interference protection if it is permitted to use the 2.4 GHz ISM band, including protection from

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6/ See 47 C.F.R. §§ 2.106, 18.101(c), (g), 18.111(c); see also Amendment of Parts 2 and 97 of the Commission’s Rules to Create a Low Frequency Allocation for the Amateur Radio Service, Notice of Proposed Rulemaking, 17 FCC Rcd. 8954, ¶ 41 (2002) (“[I]ndustrial, scientific and medical (‘ISM’) devices operate in the 2.400-2500 MHz band and other radiocommunication services operating in this band must accept interference caused by ISM devices.”).

Part 18 ISM devices.\(^8\) Globalstar similarly recognized that it is not entitled to interference protection. Indeed, it expressly acknowledged the concerns identified by AHAM and other commenting parties in the earlier stages of this proceeding by clarifying:

> “Globalstar does not request operating rights in the 2473-2483.5 MHz band that are superior to those of other unlicensed users. Like other unlicensed services, TLPS transmissions on unlicensed spectrum below 2483.5 MHz will enjoy no protection from interference from other licensed and unlicensed operations. In particular, Globalstar’s TLPS will accept harmful interference from unlicensed operations on Wi-Fi Channel 11 and from microwave oven operations in the 2.4 GHz band.”\(^9\)

Accordingly, AHAM urges the Commission to highlight this determination in any decision granting Globalstar access to use of the ISM band.

The Commission’s current regulatory framework has resulted in the successful coexistence of numerous devices and operations in the ISM band. For instance, the ISM band is presently occupied by amateur radio services, broadcast auxiliary services, and private radio licenses.\(^10\) In addition, as FCC Commissioners have noted, the 2.4 GHz band has been critical to the success of unlicensed technologies like Wi-Fi and Bluetooth.\(^11\) The ability of these

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\(^8\) NPRM ¶ 20 (“Globalstar’s managed operations in the 2473-2483.5 MHz band would not be entitled to interference protection from licensed services, other Part 15 devices, or Part 18 ISM devices.”).


\(^10\) See Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, Order on Reconsideration and Fifth Memorandum Opinion and Order and Third Memorandum Opinion and Order and Second Report and Order, 21 FCC Rcd. 5606, ¶¶ 53-54 (2006).

\(^11\) See, e.g., Prepared Remarks of FCC Chairman Tom Wheeler, GSMA Mobile World Congress, at 3 (Feb. 24, 2014) (“One of the FCC’s great success stories was the creation of unlicensed uses in the 2.4 GHz band in the 1980s, which resulted in innovations like WiFi and Bluetooth.”); Statement of Commissioner O’Rielly, Revision of Part 15 of the Commission’s Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band, ET Docket No. 13-49, FCC 14-30 (rel. Apr. 1, 2014) (“Once thought unusable, the FCC opened [the 900 MHz, 2.4 GHz, and 5.8 GHz] bands up to unlicensed use in the 1980s and today they are some of the most valuable bands in the world, hosting popular wireless services, the most notable being Wi-Fi and Bluetooth, but also include baby monitors, cordless phones, garage door openers.”).
services and technologies to share ISM spectrum without causing significant interference problems demonstrates that the rules which govern the band are working; Globalstar’s TLPS system should operate under the same regulatory regime.

In particular, Globalstar must not be permitted to complain later that there is any interference to its operations from ISM devices. Any suggestion that microwave ovens or other Part 18 equipment should be modified now or in the future in order to permit the type of operations that Globalstar envisions must be firmly rejected. Therefore, if the Commission permits Globalstar to use the ISM band in conjunction with its proposed TLPS network, it should make clear that Globalstar holds no superior position over other users in the ISM band and must accept any and all interference from devices operating within that band.

III. CONCLUSION

As the FCC and Globalstar properly recognized, Globalstar is not entitled to superior rights or interference protection if it is granted use of the unlicensed ISM band in conjunction with its licensed spectrum. AHAM therefore urges the Commission to expressly state in any decision permitting Globalstar to deploy its TLPS network that, like any other user of the 2.4 GHz band, Globalstar must accept any interference from ISM operations in the band.
Respectfully submitted,

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