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

In the Matter of	)	
	)	
Amendment of Parts 2 and 15 of the	)	IB Docket no. 17-95
Commission's Rules to Facilitate the Use of Earth	)	
Stations in Motion Communicating with	)	
Geostationary Orbit Space Stations in Frequency	)	
Bands Allocated to the Fixed Satellite Service	)	

REPLY COMMENTS OF THE
FIXED WIRELESS COMMUNICATIONS COALITION

The Fixed Wireless Communications Coalition, Inc. (FWCC)[1] files these reply comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.[2]

I. INTRODUCTION

The FWCC does not oppose the Commission's proposal to open the 11 and 19 GHz bands to Earth Station in Motion (ESIM) users; however, in accomplishing this goal, any rule changes should maintain the status quo as to Fixed Service (FS) licensees,[3] namely, that ESIM receivers are not entitled to protection from FS transmitters, even if 19 GHz ESIMs operate on an otherwise co-primary basis with the FS. The record shows widespread agreement on this point.

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[1] The FWCC is a coalition of companies, associations, and individuals actively involved in the fixed services—*i.e.*, terrestrial fixed microwave communications. Our membership includes manufacturers of microwave equipment, fixed microwave engineering firms, licensees of terrestrial fixed microwave systems and their associations, and communications service providers and their associations. The membership also includes railroads, public utilities, petroleum and pipeline entities, public safety agencies, backhaul providers, and/or their respective associations, communications carriers, and telecommunications attorneys and engineers. Our members build, install, and use both licensed and unlicensed fixed wireless systems. For more information, see www.fwcc.us.

[2] *Use of Earth Stations in Motion*, Report and Order and Further Notice of Proposed Rulemaking, 33 FCC Rcd 9327 (2018) (Notice).

[3] "FS" includes the Part 101 Common Carrier and Private Operational Fixed Services.

II. ESIM OPERATIONS IN 11 AND 19 GHZ BANDS SHOULD BE ON AN UNPROTECTED BASIS WITH RESPECT TO FS.

The record reflects agreement among satellite providers that ESIMs do not need protection from the FS in the 11 and 19 GHz bands. "[I]nterference to moving satellite terminals from FS transmission would be transitory and could be adequately managed by the ESIM network operator."[4] In part, ESIMs manage interference through dynamic frequency selection,[5] and "[w]ith the implementation of such methods there should not be any noticeable impact on ESIM customers due to interference from FS operations."[6]

Moreover, as the FWCC noted in its earlier comments, FS protection of ESIMs that can pop up without warning is not feasible.[7] Even if a coordination system were theoretically possible, implementing it would be exceptionally costly and time-consuming. Fortunately, the record shows a consensus that such a system is unnecessary.

The Boeing Company proposes that ESIM operations in the 19 GHz band be on a co-primary basis.[8] Boeing asserts that power flux density limits will protect co-primary 19 GHz FS operations from satellite interference in the band,[9] but is silent about any need for protection of ESIMs from FS transmitters. FWCC presumes the same factors that, according to Boeing, will

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4 SES Americom, Inc. and 03B Limited at 3; *see also* Panasonic Avionics Corporation at 2 ("Furthermore, because ESIMs operate on mobile platforms […] and often far from co-frequency systems and services […], *there is no need to protect ESIM receive operations in these bands*.") (emphasis added).

5 Viasat, Inc. at 4 ("All earth stations within Viasat's networks, including ESIMs, are capable of dynamically changing frequencies as needed to avoid interference. […] Therefore, interference from co-frequency operations is substantially mitigated. Moreover, as noted above, ESIMs by definition are transient, and any potential interference from FS operations in these bands would be fleeting.").

6 Inmarsat Inc. at 3.

7 FWCC at 3-4.

8 The Boeing Company at 5-6.

9 *Id.* at 5.

make ESIMs impervious to FS interference when receiving on a secondary basis at 17.8-18.3 GHz – frequency shifting, changing locations, momentary effects, and database controls[10] – should apply just as well at 19 GHz. If the Commission allows otherwise co-primary ESIM operations in the 19 GHz band, it should clarify that such operations are "on an unprotected basis with respect to the fixed service" (as is currently the case for other blanket licensing in the band).[11]

III. CONCLUSION

Neither the Notice nor any party suggests that giving 11 and 19 GHz ESIMs protection from the FS is necessary to their operation. Inasmuch as such protection is impracticable, we ask the Commission to allow ESIMs in these bands only on an unprotected basis with respect to the fixed service.

Respectfully submitted,

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10 *Id.* at 4-5.

11 47 C.F.R. § 25.115(e)(2).