

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of	)	
	)	
Expanding Flexible Use in Mid-Band	)	GN Docket No. 17-183
Spectrum Between 3.7 and 24 GHz	)	

To: The Commission

**COMMENTS OF  
THE GLOBAL VSAT FORUM**

Through these comments, the Global VSAT Forum<sup>1</sup> expresses the support of the international satellite community for the comments and reply comments of the Satellite Industry Association (“SIA”) highlighting the critical importance of satellite communications networks operating in the C-band frequencies of 3.7-4.2 GHz and 5.925-6.425 GHz. C-band satellites are used to distribute essential communication and video programming services on a global basis, including in highly developed countries such as the United States.

C-band satellite spectrum is an important and irreplaceable resource that is used globally by the satellite industry to provide critical services to major industries and applications, including aviation, maritime, peace keeping, disaster preparedness and response, television distribution, corporate networking, remote Internet access, distance education, and telemedicine. C-band satellite services contributed significantly in recovery and relief operations for recent major disasters, including the recent hurricanes in Houston and in the Caribbean.

The specific C-band allocations of 3.7-4.2 GHz (space-to-Earth) and 5.925–6.725 GHz (Earth-to-space) are optimal for wide area satellite coverage of entire continents and are far less

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<sup>1</sup>With more than 250 members, GVF brings together organizations engaged in the delivery and use of advanced broadband and narrowband satellite services to consumers, and commercial and government enterprises worldwide.

susceptible to signal interruptions from heavy rains as compared to other satellite spectrum allocations, making the C-band much better suited for ensuring high reliability in tropical areas. These attributes make C-band a highly economical choice for providing communications services that are ubiquitously available throughout the world.

The C-band is heavily used by the satellite industry both in the United States and in other countries. About 180 C-band satellites operate in geostationary orbit, representing as much as \$50 billion of in-orbit investment. Many of these satellites were launched in recent years and have expected operational lives of 15 years or more. Substantial additional investment has been made on the ground to communicate with and receive services using C-band satellites.

C-band satellite services generally cannot be replaced with satellite services using other spectrum bands, or with non-satellite technologies. The C-band provides relatively high reliability in tropical and high-rain regions, along with large continental coverage within a single beam reaching remote and oceanic areas that are unserved by terrestrial networks. Further, other satellite spectrum bands – such as the L-, the Ku- and the Ka-bands – are already very heavily used and little additional capacity is available to accommodate the services that are provided today using C-band satellite networks.

C-band satellite networks are designed to share spectrum efficiently with many other spectrum uses. For example, C-band satellite networks have long operated on a shared basis with fixed point-to-point microwave networks on a coordinated basis. C-band satellite networks also share with each other; nearly all of the C-band satellites in operation today use much of the same spectrum, employing precise orbital spacing and directional antennas to avoid interference into each other.

Given the highly efficient manner in which satellite networks operate in the C-band, and the critical and often irreplaceable communications services that are provided by C-band satellite networks, the Commission would best serve the public interest by ensuring that it does not adopt any sharing mechanisms that could impair the continued operation of C-band satellite networks in the 3.7-4.2 and 5.925–6.725 GHz bands.

Respectfully submitted,

**THE GLOBAL VSAT FORUM**

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