



15 September 2011

Dr. Shri Sudhir Gupta
Pr. Advisor (MS)
Telecommunications Regulatory Authority of India
New Delhi, India

pradvmn@traf.gov.in

**Subject: Telecom Regulatory Authority of India Consultation Paper on
“IMT-Advanced Mobile Wireless Broadband Services”
New Delhi: 19th August 2011**

Dear Dr. Gupta:

Thank you for the opportunity to offer comment on this important proceeding.

The Global VSAT Forum (GVF) is a non-profit association representing the global satellite industry. Our membership comprises more than 200 companies from 100 countries in every region of the world, including India. Our membership includes companies from all sectors of the industry, including satellite operators, satellite manufacturers, ground segment and network operators and manufacturers, as well as consultants, law firms and other organizations involved in the satellite industry.¹

GVF would like to offer the following comments with respect to band 3.4 – 3.6 GHz band included for consideration in the above referenced consultation paper:

Section 2.22 on page 36 of the TRAI consultation paper states:

“In respect of spectrum in 3.4-3.6 GHz band, in its recommendation on “Allocation and Pricing of 2.3-2.4 GHz, 2.5-2.69 GHz, 3.3-3.6 GHz” dated 11th July, 2008, the Authority decided not to make any recommendation for 3.4-3.6 GHz unless DoT assess the compatibility of satellite based services with the terrestrial BWA services and a detailed analysis is done in a transparent and time bound manner to ascertain the feasibility of mitigation of the interference problems reported by some of the stakeholders including Department of Space, considering the fact that there was no clarity on the use of this band in the country.”

The consultation paper and other available documentation provide no indication that DoT has yet done such an analysis. Due to the widespread use of the C-band in India – both “extended” C-band (3.4 – 3.7 GHz) and “standard” C-band (3.7 – 4.2 GHz) – and in view of the concerns and lack of clarity cited in Section 2.22 quoted above, it could be expected that the necessary protection zones for C-band would be very extensive, leaving only small areas where the band 3.4 – 3.6 GHz could be assigned to IMT-Advanced.

International analyses have been performed, for example ITU Working Parties 5A and 4A Studies on compatibility of broadband wireless access (BWA) systems and fixed-satellite service (FSS) networks in the 3 400–4 200 MHz band (ITU-R Report S.2199).

¹ For more information regarding the GVF, please visit the association’s web site (www.gvf.org).

Both of these reports outline the studies that have been conducted on the technical implications of co-existence of BWA/IMT systems and the “fixed satellite services” -- FSS. These reports agree that when BWA/IMT stations and FSS earth stations are deployed in a ubiquitous manner, co-frequency operation is not feasible. It is notable that FSS C-band receive stations are already deployed throughout India, as they are used for a variety of services, but notably for reception of television signals by cable TV operators throughout the country.

For many countries in Asia located in areas with high rain rates the C-band is often the only means of reliable communication. It should not be jeopardized by potential spectrum interference. C-band satellites tend to have region-wide coverage areas (including India but also including many other markets in this hemisphere).

International studies have shown that the use of the 3.4 – 3.6 GHz band for IMT-Advanced will cause interference into FSS applications even using the standard C-band.

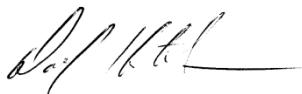
The use of the band 3.4 – 3.6 GHz in India for IMT-Advanced would therefore preclude use of the C-band for satellite services in all regions where IMT-Advanced services are operated in that band. In turn, this would jeopardize the financial basis for all future investments by making investment in C-band satellites less attractive due to loss of potential business over India. This will jeopardize availability of C-band services in India and throughout Asia.

The investment in C-band satellites represents billions of dollars by the satellite industry, with correspondingly large investments in transmission and receiving facilities by the providers and distributors of TV programming throughout the Asia-Pacific region – including Indian broadcasters and Indian cable companies.

In view of the above reasons, GVF is deeply concerned regarding the inclusion of the band 3.4 – 3.6 GHz in the present TRAI consultation on frequency spectrum for IMT-Advanced services. This band is not suitable for use by IMT-Advanced or other broadband wireless systems, as it is in wide use for other important services, namely the FSS satellite service already deployed throughout India. We urge TRAI not to further consider use of these frequencies for IMT-Advanced since such use may jeopardize essential C-band communication services across India (and in neighbouring countries as well).

GVF would like to thank the TRAI again for the opportunity to comment on this Consultation Paper and for its continuing openness to dialogue with industry sectors affected by spectrum policies. Queries should be addressed to Mr. Matthew Botwin, Chairman of GVF’s Regulatory Working Group on mbotwin@regentsquaregroup.com.

Sincerely,



David Hartshorn
Secretary General
Global VSAT Forum