TELECOMMUNICATIONS LAW
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November 2008

FCC Revises Satcom Regulations

On October 17, 2008 the U.S. Federal Communications Commission (FCC) released an Order making it possible for more earth station applications to be licensed expeditiously.

Before this Order, an application could be processed expeditiously only if it used 2-degree compliant antenna; and the antenna had a minimum diameter of 4.5m for C-band or 1.2m for Ku band systems.

With this Order, systems with non 2-degree compliant antennas, or with smaller diameter antennas now have the option of being processed expeditiously if they reduce their power to comply with certain FCC pre-determined power density limits.

State Certification of Prepaid Cards

State Public Utility Commissions (PUCs) regulate prepaid calling card providers offering services within state borders. Although some states are still silent regarding regulation of prepaid calling card services, most states have some level of regulation.

In some states, registration is a simple one-page application with the PUC. In other states, regulation includes registering the entity to do business with the Secretary of State, obtaining of a bond, furnishing of financial statements, proving technical capacity, proving financial stability, etc.

State certifications must be obtained prior to entering the cards into the market. Providers are required to file a tariff defining the terms and conditions under which they intent to sell services to consumers in the state.

What is EIRP Density?

In radio telecommunications, the Effective Isotropically Radiated Power (EIRP) is a standardized theoretical measure of energy.

The EIRP is the amount of power that an isotropic (radiates in all directions) antenna would emit towards the direction of maximum antenna gain. EIRP is often stated in decibels over a reference unit of power, such as dB Watts (dBW).

The EIRP Density … (*Continued on Page 2*)

Did You Know FCC VSAT applications require certain technical exhibits?

Exhibits that may be required in FCC VSAT applications include spectral density showings, radiation hazard studies, statements regarding FAA compliance, statements regarding international satellites.

On Your Radar Screen Satellite 2009 Conference will be on March 24-27, 2009 at the Washington Convention Center.

A larger turnover is expected since the conference was moved to March.

In this issue:

Facts of Interest:

- An FCC document has five digits at the end of it (e.g. FCC 99-100). The first 2 indicate the year and the last 3 represent the sequence of the document.
- The FCC is divided into 15 Bureaus and Offices, and 5 Commissioner Offices.

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What is EIRP Density (continued)

is the EIRP spread over a given bandwidth. The FCC has traditionally used a 4KHz block as unit of bandwidth for regulations involving EIRP Density.

For instance, the FCC imposes a maximum uplink EIRP Density limit of –2.7dBW/4KHz for C-band systems, while Ku-band systems are limited to –14dBW/4KHz (measured at the antenna feed).

For example, an uplink carrier requires an EIRP of 46dBW to meet the total system availability goal. This carrier occupies a bandwidth of 1200KHz and uses an antenna with a transmit gain of 41dBi. The EIRP Density at the feed is calculated as follows:

46dBW—41dBi—10log(1200KHz/4KHz) = -19.8dBW/4KHz.

Notice that for ease of calculation, the bandwidth was converted to decibels. The calculated –19.8dBW/4KHz is well below the FCC maximum of –2.7dBW/4KHz limit.

Transfers of Control in Mergers and Acquisitions

The FCC requires prior consent to any transfer of control (T/C) of an entity holding an FCC authorization. Often times this simple rule is overlooked in corporate mergers and acquisitions.

Recently, a satellite service provider was fined by the FCC enforcement bureau for failing to file a T/C application prior to being acquired by a private equity group.

"Control" is not limited to majority stock ownership, but also includes direct or indirect ownership such as through intervening subsidiaries.

A change from less than 50% ownership to more than 50% ownership is always considered a transfer of control.

C-Band Blanket Authorizations (CSAT Licenses)

The FCC allows a group of C-band earth stations to be licensed under a single blanked authorization called CSAT. The purpose of this license is to permit a more efficient process of obtaining one license for a group of earth stations, rather than filing individual applications.

A CSAT authorization does not allow C-band remotes to operate while in motion. Moving applications are covered under an Earth Stations on Vessels (ESV) authorization.

While CSAT authorizations offer a more efficient application process, individual earth stations covered by the CSAT still need to meet all the requirements as they would under an individual application. Therefore, frequency coordination of each remote is still required before the final CSAT license is granted.

While convenient, CSAT licenses have one main limitation. The network of remotes covered by the CSAT is permitted to access a maximum of 3 satellites with an aggregate maximum of 20MHz of uplink bandwidth (and 20MHz of downlink bandwidth) per satellite.

VSAT Licensing in India

VSAT Licensing in India is done by the National Regulatory Authority. The first VSAT commissioned in India was in 1994. From then until 1999, there were several regulatory changes that led to the New Telecom Policy (NTP) of 1999. The NTP permits the issuance of non-exclusive domestic VSAT licenses (within the boundaries of India). These licenses are issued for a 20 year period.

At first, VSAT licenses were only allowed if provided over the INSAT satellites in the extended C-band. This changed in 2001 when services over the Ku band were allowed. Presently, the INSAT requirement has been removed and services over foreign satellites are now permitted. However, the Department of Space is the only body authorized to negotiate space segment with foreign satellites.