

12 May 2010

**Proposed Czech Telecommunication Office amendment to the 2005 electronic communications rules zákona č. 127/2005 Sb. - ref. Čj. 9015/2010-605 : část plánu využití rádiového spektra č. PV-P/11/xx.2010-yy pro kmitočtové pásmo 27,5–33,4 GHz.**

SES is pleased to submit comments to the Czech Telecommunication Office (CTO) regarding the proposed amendment of the 2005 national electronic communications rules related the use of the Ka-Band 27.5-30.0 GHz.

SES is a leading satellite company which provides coverage and connectivity to a broad variety of customers worldwide. SES wholly-owns three satellite operators, SES ASTRA (ASTRA) offering services in Europe and Africa; SES WORLD SKIES (WORLD SKIES) which offers services in the Europe, the Americas, Africa, the Middle East and Asia; and SES SIRIUS (SIRIUS) offering services in Europe. SES also holds interests in Ciel in Canada, in QuetzSat in Mexico, in O3b Networks based in Jersey, Channel Islands, as well as in a number of satellite service providers. SES provides outstanding satellite communications solutions via a global fleet of 43 satellites. Many of the satellites in SES' satellite fleet provide or are capable of providing service to the Czech Republic. ASTRA, WORLDSKIES and SIRIUS provide satellite-based multimedia, internet, satellite news gathering (SNG), and telecommunication services to enterprises and governments.

**Background**

Millions of Europeans do not have access to terrestrial communications networks – whether fiber or terrestrial wireless. Even in the best connected countries there are unserved and underserved areas, particularly in rural and remote areas. Ka-Band fixed satellite services (FSS) are ideally suited for bridging this digital divide by offering two-way broadband services, video distribution (including direct-to-home (DTH) television), data services, and other important communications capabilities. Ka-Band satellite services can help to make the European Union's "Broadband to All" goal a reality.

Demand for satellite services in Europe has increased dramatically in recent years. It is anticipated that such high demand will continue for the foreseeable future. With the Ku-Band now largely fully utilized in Europe, it is the Ka-Band that satellite operators are relying on for continued critical expansion and growth of advanced and important services such as those identified above.

Several satellite operators, including SES and other members of the European Satellite Operators Association (ESOA), have invested heavily in Ka-Band satellites and already have operational satellites in this band. Satellite operators have also already deployed harmonised consumer terminals in the 19.7-20.2 GHz and 29.5-30 GHz FSS frequency bands and gateways in the bands 17.7-19.7 GHz and 27.5-29.5 GHz.

Substantial additional investments have been made in new Ka-Band satellites. These satellites are currently under construction and are expected to be launched and placed into commercial operation within the next 4 years. These systems reflect the significant investment and commitment of the satellite industry to use the Ka-Band, including the 27.5-30 GHz bands, to bring the most important and advanced services to all of Europe. In particular, SES has already invested about one billion Euros in the development of four geostationary satellites using the 27.5-30 GHz frequency band. One of these satellites will be launched imminently and three others are under construction. These include:

- ASTRA 3B, to be launched in May 2010
- ASTRA 2F, to be launched in 2012
- ASTRA 2E, to be launched in 2013
- ASTRA 2G, to be launched in 2014

As other satellite spectrum, particularly in the Ku-band, becomes increasingly congested these planned satellite networks will use the 27.5 - 30 GHz bands in order to expand important broadband, data, audio and video broadcasting, satellite news gathering, and other services in Europe, including the Czech Republic.

For example, our Czech customer ÔĀKO TV is currently using the band 29.5-30 GHz on the ASTRA 1L satellite for DTH contribution links and it is expected that similar uses will develop when our ASTRA 3B satellite will be available. In addition, our affiliate ABBS (Astra BroadBand Services) is currently providing internet-via-satellite services to 11 European countries using Ku-band and plans to start similar services in Ka-band in the Czech Republic once our new Ka-band satellites will be operational.

As a result, demand for Ka-Band-based services is already well established. Deployment of Ka-Band services has accelerated with the launch of several high-capacity Ka-Band satellites.

Ka-Band enables deployment of small satellite terminals for delivery of affordable, high quality, two-way broadband, DTH, video distribution, data services, and more. Use of this band for two-way broadband services is widely accepted in other areas of the world – in particular in the U.S. where more than 1 million customers are already using Ka-Band for broadband services.

Certainty of access to Ka-Band spectrum throughout Europe is essential to assure its efficient and successful use for important services. Substantial administrative burden or regulatory risk related to inability to use spectrum could have far-reaching economic and commercial consequences and delay or handicap the deployment. The end result would be harm to consumers who would suffer from reduced availability and choice of commercial service offerings and reduced competition in the Czech market. In the end, citizens that are most in need may stand to lose the most.

Satellites are the most efficient and cost effective means of promptly bringing broadband and other important services to all Czech citizens in rural, remote and other unserved or underserved areas of the Czech Republic. One excellent benefit is that satellite networks achieve this without the need to spend precious taxpayer money on construction of additional expensive terrestrial infrastructure.

### **CTO Proposals**

SES understands that CTO is granting access to uncoordinated HD-FSS earth stations to the 27.5-27.8285 GHz, 28.4445–28.8365 GHz and 29.4525–29.5 GHz bands, in line with the CEPT Decision ECC/DEC/(05)01 (Section 3, Article 7). SES also understands that CTO expects to grant such access under a general (“light touch”) licensing regime, depending on the market growth (Section 3, Article 8).

SES further understands that CTO will grant access to fixed service terrestrial systems (FS) to the 27.8285–28.4445 GHz and 28.9485–29.4525 GHz bands on an exclusive basis, whilst the 28.8365–28.9485 GHz band would be shared between FSS and FS (Section 2, Article 5). Some of the spectrum made exclusive to FS would be reserved for UMTS, and the rest is to be made available to fixed wireless access (FWA).

Finally, SES understands that CTO has proposed access to the 29.5-30.0 GHz band in line with the CEPT Decisions HEST & LEST ECC/DEC/(06)02 & 03, and uncoordinated HD-FSS earth stations would depend on a light touch general authorization regime (Section 3, Article 7). The same approach would be applied to both FSS and mobile satellite service (MSS) terminals transmitting in this band (Section 4, Article 9).

In ECC/DEC(05)01, CEPT identified several blocks of bands between 27.5 and 29.5 GHz (Earth-to-space) to be allocated on a primary basis to uncoordinated FSS earth stations (for a total of 880 MHz) or to the fixed (terrestrial) service (for a total of 1120 MHz). ECC/DEC(05)01 also provides that coordinated FSS earth stations can be deployed anywhere in the band.

SES commends CTO for their plan to enable effective roll-out of important satellite services in the 27.5-27.82 GHz, 28.45-28.94 GHz, 29.46-30 GHz (Earth-to-space) bands as identified for high-density FSS applications in ITU Region 1 by footnote 5.516B of the ITU Radio Regulations and in conformity with ECC/DEC/(05)01. This spectrum is indeed used for FSS terminals on a non-coordinated basis. Therefore, a light touch authorization regime would be very welcome to facilitate and foster use and development of the spectrum.

SES further commends CTO for their pragmatic approach in the 29.5-30.0 GHz band. We further recommend that the FSS and MSS markets and their users would best benefit from a regime where earth stations (*i.e.*, terminals) transmitting up to an e.i.r.p. of 60 dBW are license exempt.

The CEPT ECC/DEC/(05)01 enables coordinated FSS earth stations to be deployed in the entire band (between 27.5 and 29.5 GHz). Even if this CEPT decision gives priority to the FS in certain frequency ranges of the 27.5-29.5 GHz band, its intention is not to exclude satellite services from those frequency ranges. This spectrum is often used for FSS gateways which require significant amounts of contiguous spectrum in the order of 1 GHz or more. It is essential for the satellite community to be able to obtain licenses for coordinated earth stations in the full 27.5-29.5 GHz frequency range. It is also important to note that such gateway earth stations are very limited in number, typically one or two per country. As a result, their impact on the deployment of terrestrial services is very limited.

### **Conclusion**

Given the foregoing and the substantial and growing importance of satellites for the provision of important service in the Czech Republic and throughout Europe, SES supports CTO's proposed light touch authorization regime. SES further recommends a licensing exemption for FSS and MSS terminals transmitting below 60 dBW. Finally, SES respectfully requests that CTO support SES' interpretation of the CEPT Decision ECC/DEC/(05)01 so FSS services can also be deployed in the entire 27.5-29.5 GHz band on a coordinated basis.

SES appreciates the opportunity to provide comments on this consultation.