

APT Satellite (APT)'s Comments on Consultation Paper

11 March 2005

Subject

1 Consultation paper - "Licensing Framework for Deployment of Broadband Wireless Access, 20 December 2004"

Questions

2.1 APT has already received the **Space Carrier License** authorizing the operation on the 3.5GHz frequency band on APSTAR-V. TA is about to issue the **Space Carrier License** for APSTAR-VI which will be launched soon. At least two 13 meter antennas that are covered in the License and operating in 3.4-3.6 GHz band might receive interference from BWA in the future. Special consideration for protecting the existing FSS services in the concerned frequency bands shall be taken into the license policy making process.

Facts

3.1 APT has consulted the satellite operators in Thailand, Indonesia and mainland China, there were tests and studies in SWA system in 3.4-3.6 GHz band in these places yet none of them reaches conclusion and allocates the band to BWA system on an exclusively primary basis. In mainland China, two portions of this band, i.e. 3.4 to 3.43 GHz for terminals, 3.5 to 3.53 GHz have been allocated to BWA for trial and commercial services in some cities. Due to lack of the success of the business, no more frequency portions in 3.4-3.6 GHz are planned to serve BWA. In Thailand and Indonesia, the band is allocated to FSS and Fix service on co-primary basis.

Considerations

4.1 APT has launched new APSTAR-V satellite in June 2004, and another satellite APSTAR-VI will be launched in April 2005. Both satellites carry transponders transmitting signals in 3.4-3.6 GHz band to Hong Kong territory. APT foresees a booming transponder leasing market in the years to come and has invested much in total 20 transponders that might

be affected by the re-allocation. Moreover, TA has issued **Space Carrier License** to APT for the operation of APSTAR-V on 1st November 2003 and will soon issue the one for APSTAR-VI, The **License** authorized APT the right to operate on those transponders transmitting signals in 3.4-3.6 GHz band. If the satellite operator has to take all the interference from BWA without any protection, the re-allocation will make those 20 transponders useless in Hong Kong and consequently cause direct loss on APT's revenue from Hong Kong market.

4.2 APT understands the re-allocation is in accordance with the spirit of maximizing the utilization of spectrum. However, it is also reasonable for satellite operators to share the previously allocated 3.4-3.6 GHz band with terrestrial services providers on a mutual benefit basis. As a satellite operator, APT would like to see more study or analysis about the possibility of BWA systems interfering into FSS. Although it was already discussed in RSAC meetings and some paper study has been carried out by TA, no field test has been carried out about the operational constraints in the implementation of BWA systems for the purpose of minimizing the possibility of interference. APT believes, at the present time, the re-allocation, if any, should be carried out in an orderly manner rather than an abrupt change. APT would like to propose two services (BWA and FSS) co-primarily co-exist in the early phase of the re-allocation process.

4.3 APT fully respect TA's spirit of seeking balance between FSS and BWA, we recommend the re-allocation, if any, should take place in a step-by-step portion-by-portion manner, the whole 200MHz should be divided into several layer, those of an urgent need by BWA could be used earlier, while the rest remains for FSS use. A clear time table for re-allocating specific frequency portions should be made available to the industry.

4.4 If any test will be carried out by TA to explore the compatibility between FSS and BWA, APT would like to take part in it.