NARRATIVE STATEMENT FOR EXPERIMENTAL APPLICATION

The proposed operations represent an outgrowth of current operations of SES Americom, Inc. ("Applicant") which are conducted pursuant to an STA, call sign WC9XRI.[1] Applicant seeks to continue and expand upon its current program of experimentation which assesses the suitability and performance of equipment which may be used to provide mobile video services.

Specifically, a Digital Video Broadcast Handheld (DVB-H) system will be tested indoors. The operations will be used to determine if the DVB-H modulation standard performs satisfactorily and to measure its performance characteristics. Additionally, baseband processing systems such as video compression and multiplexing will be tested to determine if they are consistent with standards. The DVB-H system to be tested incorporates a number of new technologies which require laboratory testing because items such as H.264 compression, error correction, and OFDM modulation methods are not yet widely deployed in the U.S. Applicant is requesting a modest increase in power from what is currently authorized under its STA. This power increase – from 8 mW ERP to 1 W ERP – will enable Applicant to expand the range of operations within Applicant's building. This expanded range will enable Applicant to take performance measurements based on transmissions through single and multiple walls, floors and other barriers consisting of different materials, including concrete, drywall, metal, etc..

For the proposed operations, Applicant will use a ProTV DVB-H modulator with amplifier (model # PT5780), connected to a vertically polarized Kathrein antenna (model #768402). As receiving units, it will use handsets developed by LG and Samsung for DVB-H reception.

Applicant's proposed experimental operations should not caused harmful interference to incumbent spectrum users, as explained below:

- Although there are no nearby active co-channel TV broadcasting stations, there is a pending application for a digital low power station in New York City (file no. BSFDTL-20060630BNV). The attached Figure 1 shows that Princeton is outside the 36 dBu service area contour of this proposed station.

- The closest upper adjacent channel (60), WBPH-TV, is located at Bethlehem, PA. The attached Figure 2 shows that Princeton is outside the service area contour of this station, which is operating pursuant to an STA.

- The closest lower adjacent channel (58) is WNJB at New Brunswick NJ. Even though Princeton is within the coverage area of WNJB, the possible interference created by the proposed operations is very low. The maximum transmitted power (ERP) requested for authorization inside Applicant's office building is only 1 W. The concrete walls of the

---

[1] Pursuant to § 5.61(b), Applicant will be filing an extension request for WC9XRI concurrently with this application.

building provide an attenuation of at least 15 dB for the radiated signal, reducing the EIRP to an effective value of 15 dBm. The closest residential area is about 200 meters away. This physical separation provides an additional free space loss of about 46 dB relative to that at a distance of 1m. Accordingly, the degree of interference created at this level would be negligible. Moreover, should any interference be reported, Applicant's advance coordination with the SBE will enable the station to identify Applicant as a possible source of such interference, and Applicant will immediately cease operations or take other ameliorative action if notified of any such interference.

<u>Conclusion</u>

Grant of this application will enable Applicant to obtain operational knowledge relating to DVB-H systems which is not otherwise readily available. It will also assist Applicant in perfecting such a system in order ultimately to provide the best possible mobile video service to consumers, and will thereby increase the utilization of the radio art.
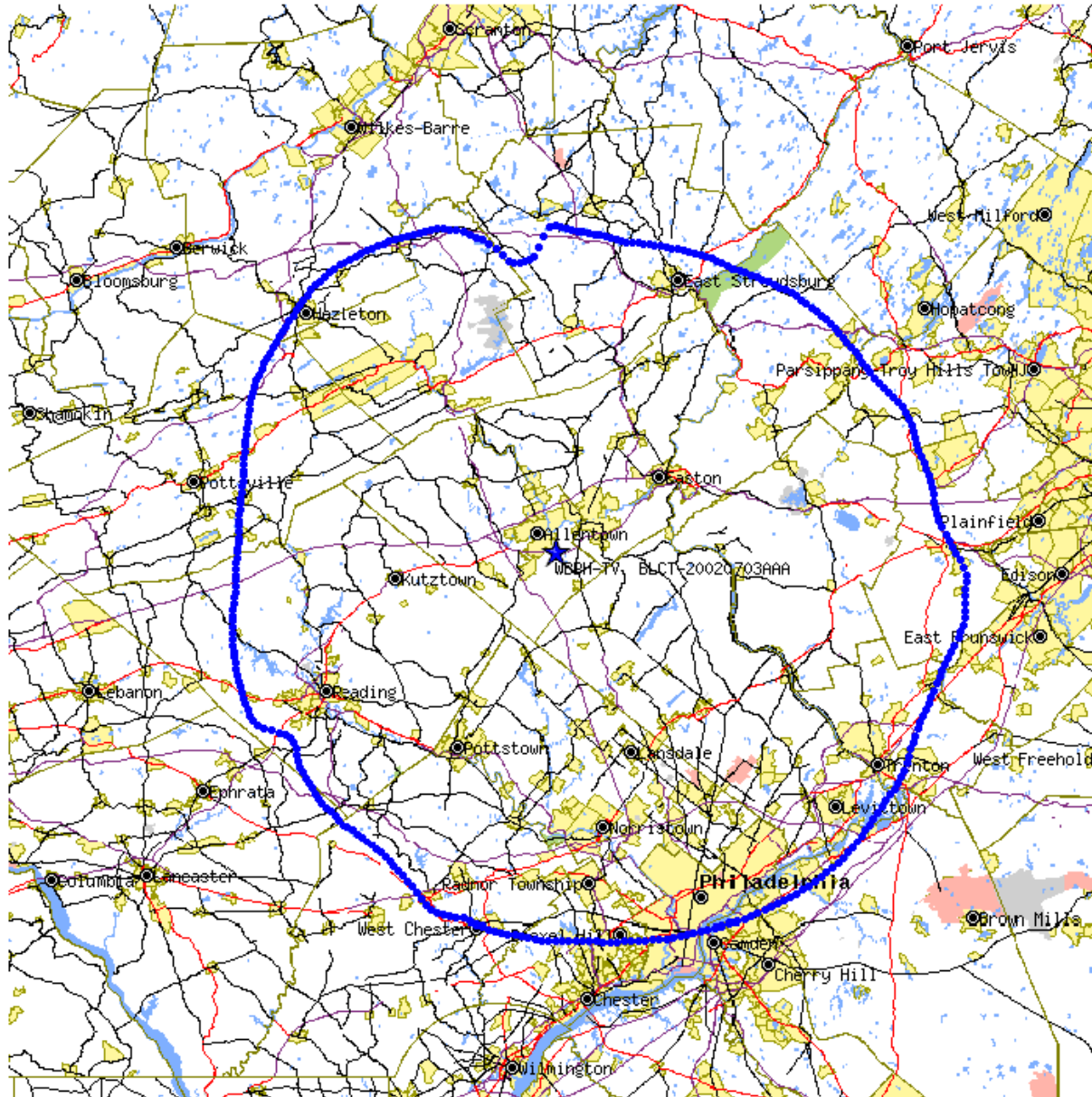
Figure 1

Ch 59
File No.:
BSFDTL-20060630BNV
New York City, NY

Figure 2

Ch 60
WBPH-TV
Bethlehem, PA