

**ATTACHMENT A**

Technical Exhibit

TECHNICAL EXHIBIT  
IN SUPPORT OF REPLY COMMENTS OF  
SMITH MEDIA LICENSE HOLDINGS, LLC  
TELEVISION STATION KATN(TV)/-DT  
FAIRBANKS, ALASKA  
MB DOCKET NO. 87-268

This Technical Exhibit was prepared on behalf of Smith Media License Holdings, LLC in support of Reply Comments on the *Seventh Further Notice of Proposed Rule Making* (“*Seventh Further Notice*”) in MB Docket No. 87-268. This exhibit supports the modification of the certification for KATN-DT, Fairbanks, Alaska (Channel 18) and the revision of its digital allotment specified in the proposed DTV Table of Allotments at Appendix B of the *Seventh Further Notice*. It is demonstrated herein that KATN-DT’s DTV allotment facility can be modified to reflect that in its pending FCC application for modification of construction permit in conformance with established FCC policies for the DTV transition.\*

The KATN-DT proposed DTV allotment facility was based on its specified digital replication facility on Channel 18 with a maximum ERP of 60 kW with an antenna HAAT of 12 m (188 m AMSL).† The geographic coordinates for the KATN-DT certified facility are based on the KATN(TV) licensed transmitter site at 64-50-42 N.L. / 147-42-52 W.L. (NAD27).

The proposed KATN-DT facilities will be co-located with NBC facilities at its new transmitter site on Skyline Drive overlooking Fairbanks, 9.0 km north-northwest of the KATN(TV) certified facility coordinates. The KATN-DT facility that will be licensed at this site will be its final post-transition digital facility. The coordinates of the new KATN-DT transmitter site are 64-55-20 N.L. / 147-42-49 W.L. The

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\* See FCC File No. BMPCDT-20070222AAL.

† KATN(TV) is licensed for operation on Channel 2 with a non-directional ERP of 28.2 kW with an antenna HAAT of 12 m, which formed the basis for the replication facility. See FCC file No. BLCT-19820201KE. In its original 1998 DTV allotment table, the FCC specified an HAAT of 33 m for any HAAT figures less than 33 m. This is also the case for the proposed Table of Allotments in the *Seventh Further Notice*.

KATN-DT transmitting antenna will operate with a nominal non-directional ERP of 16 kW. The antenna radiation center is located at 473 m AMSL, which equates to 230 m HAAT. It is requested that this facility be employed in the new DTV Table of Allotments.

An engineering analysis was conducted to determine the predicted interference to all other licensee's potentially affected tentative channel designations (TCD's). The analysis calculated net new predicted interference according to the procedures outlined by the FCC in the *Second DTV Periodic Report and Order*<sup>‡</sup> and related Public Notices. The analysis results are summarized as follows:

**Analysis of Channel 18, KATN-DT, Fairbanks, AK (16 kW-ND, 230 m AMSL)**

There are no other proposed digital allotment facilities on Channels 17, 18 or 19 located within the search radii specified in FCC Office of Engineering and Technology Bulletin No. 69 (OET-69).

Therefore, the proposal causes no interference.

Based on the foregoing, it is concluded that the proposed new certified facility for KATN-DT as described above complies with the FCC 0.1% interference requirement.

There is no predicted interference received by the KATN-DT proposed certified facility.

There are no service area losses for the KATN-DT proposed certified facility relative to the KATN-DT present TCD noise-limited service area. The service baseline population for the KATN-DT proposed new certified facility is calculated to be 82,766 (10,380 sq. km) according to the FCC procedure. The service baseline population for the present KATN-DT 60-kW TCD is 82,180 (6,901 sq. km). Thus, grant of this

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<sup>‡</sup> *Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, MB Docket No. 03-15, Report and Order, 19 FCC Rcd 18279, 18281 (2004).

proposal would allow for an increase in KATN-DT baseline service population of 586 (3,479 sq. km) after the digital transition.



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