

FCC FORM 302-CA, ENGINEERING EXHIBIT 11  
STATEMENT OF JOHN E. HIDLE, P.E.  
IN SUPPORT OF AN APPLICATION FOR  
CLASS A LOW POWER TV DISPLACEMENT RELIEF  
K22EY, FACILITY ID NO. 72584  
FAIRBANKS, ALASKA

Prepared for: ACS Television, L.L.C.

I am a Consulting Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission. I am a registered Professional Engineer in the Commonwealth of Virginia, Registration No. 7418, and in the State of New York, Registration No. 63418.

**GENERAL**

ACS Television, L.L.C. has authorized this office to prepare this statement and FCC form 302-CA, seeking to convert K22EY to Class A status, facility ID number 72584, license file number BLTTL-960529JW, construction permit file number BPTTL-980505IF. K22EY is displaced by the allotment of channel 22 as the DTV channel for KFXF(TV) for which an application (BPCDT-19991012ABC) is pending. FCC Form 346, Section III, to be a part of an application for class A LPTV displacement relief for K22EY, is submitted concurrently with the instant displacement relief application. Both applications are being filed electronically.

Since 1996, ACS-TV's predecessor has operated low power television stations serving Anchorage and Fairbanks, Alaska as subscription systems, functionally equivalent to wireless cable services, to provide video services to subscribers. In

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1998, the Commission authorized these systems to convert from analogue to digital modulation in order to provide vastly improved video services to the public and to compete more effectively. In this regard, the Commission determined that such conversion would serve the public interest by offering subscribers more video service choices, by providing improved services to areas unserved by wireline cable television, wireless Internet access, and to promote competition.

The instant application is intended to obtain a Class A license for the digital LPTV station in question, which is part of the ACS-TV wireless cable system under development now. Using digital modulation, as authorized in the construction permits issued to the other stations that comprise this subscription television system, and as based upon subsequent submissions, this station will continue to support competition and improved distribution of service by making possible the provision of multiple additional channels of programming, as well as Internet access, to subscribers in areas of Alaska that have been inadequately served by traditional means. The Commission previously has supported efforts to increase programming alternatives in these areas by granting construction permits for minor changes to allow Goldbelt, Inc. (the predecessor of the present applicant) to operate its existing LPTV channels using digital modulation. A complete, detailed discussion of the rationale for use of digital modulation was included in the numerous minor change applications filed by Goldbelt, Inc. and granted by the Commission on June 25, 1998.

ACS-TV intends to use the COFDM method of modulation via DVB-T for its digital operations to be relocated on channel 35, which is a variant of the 64 QAM standard approved by the Commission in June 1998. As explained in greater detail in an engineering statement filed with the Commission on August 10, 2000 and other

submissions, the COFDM method is preferable because the only set-top box hardware that is readily available off the shelf in the quantities required for system implementation uses COFDM digital modulation. Conversely, set-top box hardware that uses the ATSC method is not available on a commercial basis for ACS-TV to achieve its system conversion and expansion goals. The COFDM digital standard has been approved by the Commission expressly in *Declaratory Ruling and Order*, 14 FCC Rcd 4121 (1999) for use in MMDS and ITFS wireless cable television systems. DVB-T, which relies on COFDM, has been approved on a temporary basis for broadcast television stations on many occasions including, for example, KNTV, San Jose, California, KUPN, Las Vegas, Nevada, WCAU, Philadelphia, Pennsylvania, WRC, WUSA, and WETA, Washington, DC, and WNUV, WBFF, and WBAL, Baltimore, Maryland.

### **PROPOSED FACILITY**

The proposed displaced operation of K22EY will transmit from an existing tower support structure located at 64° 52' 44" N. latitude, 148° 03' 10" W. longitude. The applicant proposes to utilize a composite directional antenna, the same as presently authorized for use by K22EY along with other LPTV stations which are licensed to the applicant at this site. The proposed antenna is a Kathrein model listed in the database as KAT-ODDJDO415EE, FCC antenna ID# 19815, and is intended for use by multiple channels.

### **INTERFERENCE POTENTIAL OF PROPOSED FACILITY**

#### **FULL POWER NTSC CONSIDERATIONS**

##### **Co-channel Interference Potential**

There are no co-channel, full-power NTSC stations within any distance to create

the potential for interference. The proposed site for the displacement of K22EY to channel 35 is wholly outside the protected service contour (Grade B) of any authorized, co-channel full-service television station.

**Adjacent Channel Interference Potential**

There are no first adjacent, full-power NTSC stations within any distance to create the potential for interference. The proposed site for K22EY on channel 35 is wholly outside the protected service contour (Grade B) of any authorized, first-adjacent full-service television station.

**"Taboo" Channel Interference Potential**

a) Channel spacing 2nd to 5th adjacent channels: K22EY's licensed ERP is 30 kW, which is below the 50 kW level at which this "taboo" must be considered.

b) -7 channel spacing: This potential interference is dependent on receiver characteristic and is independent of transmitter modulation. In this instance, there is no 7th adjacent full power NTSC station within 100 km.

c) +14 and +15 channel spacing: The proposed displacement operation of K22EY on channel 35 is neither 14th nor 15th adjacent to any full-power NTSC station within any distance to allow any potential for interference.

**FULL POWER DTV CONSIDERATIONS**

**Co-channel Interference Potential**

The proposed K22EY displacement to channel 35 is located wholly outside the protected service areas of any allotted or authorized co-channel DTV stations.

**Adjacent Channel Interference Potential**

The proposed K22EY displacement to channel 35 is located wholly outside the protected service areas of any allotted or authorized first adjacent channel DTV stations.

**LPTV CONSIDERATIONS**

**Co-channel Interference Potential**

There are no co-channel LPTV stations within any distance that would create any potential for interference. The proposed displacement of K22EY to channel 35 will neither cause interference to, nor receive any interference from, any other co-channel LPTV station.

**Adjacent Channel Interference Potential**

It is intended to co-locate the displaced K22EY on channel 35 with similar stations K34EJ and K36ED (also licensed to ACS-TV) on first adjacent channels 34 and 36, respectively, on which Class A status is also sought in separate filings by the applicant, who requests a waiver of §74.707(b)(1) in this instance. The precedent for co-location of first adjacent channel stations is well established. The potential for interference between co-located first adjacent channel stations, operating at a similar power, is minimal to non-existent based on the +15 dB U/D ratio set forth in Part 74 of the Rules. K22EY, K34EJ and K36ED are all licensed to operate with 30 kW effective radiated power. It is not expected that the signal strength of K22EY operating on channel 35 will differ from the signal strengths of K34EJ on channel 34 and/or K36ED on channel 36 by as much as a dB or two, and certainly not by any value approaching

+15 dB.

**"Taboo" Channel Interference Potential**

+15 channel spacing: The proposed displaced operation of K22EY on channel 35 is the upper 15<sup>th</sup> adjacent channel to K20FF on channel 20 which is co-located at this site with other channels in this system. Our studies indicate that co-located 15<sup>th</sup> adjacent channel LPTV stations operating with essentially equal powers will cause no interference. In our experience operating two existing co-located 15<sup>th</sup> adjacent channel LPTV stations at another site, no interference has ever been observed. Since the proposed displacement operation of K22EY on channel 35 and K20FF on channel 20 will be co-owned and operated as components in an existing subscription TV system, the applicant accepts any potential interference, however slight. The applicant, therefore, herein requests a waiver of § 74.707(b)(3).

**SUMMARY**

It is submitted that the proposed displacement of K22EY to channel 35, Class A status as described herein, except where existing waiver(s) is/are relied upon, complies with the Rules and Regulations of the Federal Communications Commission. This statement and FCC Form 302-CA were prepared by me or under my direct supervision and are believed to be true and correct.

DATED: November 28, 2000

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JOHN E. HIDLE, P.E.