

ENGINEERING REPORT

Requesting a Minor Change Application for

KFLT-FM – Tucson, AZ
Channel 203A (88.5 MHz)

License No. BLED-20050902AAH

January 2011

§73.3517 Contingent Filing Note. The applicant would like to note the existence of a §73.3517 Contingency Agreement between KLKA(FM) – Globe / Casa Grande, AZ (Facility ID No. 82692) and KFLT-FM – Tucson, AZ (Facility ID No. 81952). Both facilities are requesting simultaneous processing as §73.3517 contingent applications. Both applications have been simultaneously filed and/or amended to reference each other with regards to the §73.3517 processing request. KLKA.P will modify its directional antenna and power at its present site. KFLT-FM.P will modify its site location, antenna COR height as well as its directional antenna pattern. A copy of the §73.3517 Agreement has been supplied as an attachment to this Form 340 application.

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Exhibit 22.1 - RF Radiation Study

(Exhibit Numbering is in response to FCC Online Form 340, Section VII)

Discussion of Report

This firm was retained to prepare the required engineering report in support of this minor change application for Non-Commercial station KFLT-FM, Tucson, AZ, License No. BLED-20050902AAH. KFLT-FM is currently licensed to operate on CH203A with 1.5 kW (vertical only) at 115 meters HAAT utilizing a directional antenna. This minor change seeks to relocate the transmitter to a new site. The change in location will result in Class C3 operating parameters of 0.300 kW at 579 meters HAAT utilizing a directional antenna pattern. The facility will continue to serve the community of Tucson, AZ.

The applicant would like to note the existence of a §73.3517 Contingency Agreement between KLKA(FM) – Globe / Casa Grande, AZ (Facility ID No. 82692) and KFLT-FM – Tucson, AZ (Facility ID No. 81952). Both facilities are requesting simultaneous processing as §73.3517 contingent applications. Both applications have been simultaneously filed/and or amended to reference each other with regards to the §73.3517 processing request. KLKA.P will modify its directional antenna and power at the present site. KFLT-FM.P will modify its site location, antenna COR height as well as its directional antenna pattern. A copy of the §73.3517 Contingent Agreement has been supplied in **Exhibit 1** of this Form 340 application.

The proposed site for the Class C3 operation meets all the contour protection requirements towards other stations in the allocation with the exception of four (4) facilities, KLTU.A – Mammoth, AZ; KLTU.L – Mammoth, AZ; KUAZ-FM.L – Tucson, AZ; and KLKA.L – Globe, AZ. A tabulation of the proposed protections to each of the other relevant stations is found in **Exhibit 16.1**. A waiver of §73.509 concerning received second and third adjacent channel contour overlap is requested with KUAZ-FM.L and KLTU.A. The received incoming interference to KFLT-FM.P will be *de minimus* in nature when compared to the substantial gains in coverage which will result. A study outlining the details of this incoming interference waiver request of §73.509 has been included in **Exhibit 16.3**. Regarding given second adjacent channel interference to KLTU.L and KLTU.A, this outgoing interference to the KLTU.L and KLTU.A facilities need not be considered pursuant to KLTU.L license BLED-20061221ACP, “*Special Operating Condition No. 2*”. A copy of the KLTU.L license has been included in **Exhibit 16.2**. Regarding given third adjacent channel interference to KUAZ-FM.L, a waiver of §73.509 concerning given third adjacent channel contour overlap is requested with KUAZ-FM.L. The given interference to KUAZ-FM.L will be *de minimus* in nature when compared to the substantial gains in coverage which will result. In addition, the KUAZ-FM licensee, the University of Arizona, has reviewed this application and is not opposed to a grant of the proposal. A study outlining the details of this outgoing interference waiver request of §73.509, and precedence for such a waiver¹, has been included in **Exhibit 16.5**. Regarding Protections toward KLKA.L, the applicant would like to note that a KLKA.P – Globe AZ (Facility ID No. 82692) application and this proposed modification application for KFLT-FM.P – Tucson, AZ (Facility ID No. 81952) are requesting simultaneous processing as §73.3517 contingent applications. Both applications have been simultaneously filed/and or amended to reference each other with regards to the §73.3517 processing request. As both KLKA.P and this KFLT-FM.P proposal fully protect one another, the KFLT-FM proposal need not protect the existing KLKA.L license as a result of the §73.3517 contingent filing. A contour protection study between KLKA.P and the KFLT-FM.P proposal has been provided in **Exhibit 16.4**. It is believed there is sufficient clearance to preclude the need for further study with respect to the other protected stations shown.

The transmitter site will be located within 320 km of the common border between the United States and Mexico. Full protection has been afforded all international considerations as noted in the **Exhibit 16.1** allocation study and a separate contour protection map and tabulation toward a CH204B - Sasabe, SO, Mexico allocation as included in **Exhibit 16.5**. Tabulations for additional contours employed will be supplied upon request.

The transmitter site proposed in this application is within the affected radius of two (2) Channel 6 television facilities, K25DM.C – Phoenix, AZ and APP-TV6 – Wilcox, AZ (BNPDVL-20091228AAI). TV-6 protection studies as dictated by §73.525 have been included in **Exhibit 19.1** of this report. Full protection is provided to each Channel 6 facility under the current Rules.

¹ Referenced to *Educational Information Corporation*, 6 FCC Rcd 2207 (1991) & *Aleluya Christian Broadcasting, Inc.*, BPED-20030529ACV / BMPED-20030529AKP.

DISCUSSION OF REPORT (continued)

The proposed service contours have been calculated in accordance with the Rules, and the data obtained has been tabulated and plotted in this report. The plotted contours are found as **Exhibit 13.4** of this report. This exhibit shows the overall service that is provided by the 1.0 mV/m contour of the facility. As noted in the exhibit, the proposed KFLT-FM operation serves 74.9% of the community of license, Tucson, AZ. The tabulation of the distances to the respective contours shown in this discussion is based on the use of the standard eight cardinal bearings, which were also used for the computation of the HAAT. However, the plotted contours shown in **Exhibit 13.4** and the contour used as the basis of the area and population computations are based on the use of a full 360 terrain radials. The USGS 03 second terrain database has been employed for all calculations contained here-in.

The loss area associated with this proposal will remain full served with a minimum of no less than eight (8) aural services. As a result, a grant of this application will have no negative public interest consequences. A service floor study for the loss area has been provided in **Exhibit 13.5**. A complete listing of all aural services will be supplied upon request.

The antenna will be mounted on an existing structure. The structure stands 64.3 meters Above Ground Level and bears FCC Antenna Structure Registration 1218276. A vertical antenna plan depicting the placement of the antenna on the tower has been included in **Exhibit 13.2**.

The remainder of the information in this report and exhibit numbering is responsive to the Rules of the Commission, and provides the data for FCC Form 340.

The FM Broadcast facility proposed in this application will not produce human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1307(b)(3) of the Commission's rules concerning RF contributors of less than 5%. **Exhibit 22.1** provides the details of the study that was made to demonstrate compliance. The facility is or will be properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates if required. Any other means as may be required to protect employees and the general public will be employed.

In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.

DISTANCES TO CONTOURS: The table below shows the distances to the 1.0 mV/m contour from the proposed facility using an ERP of 0.300 kW at an HAAT of 579 meters. These distances have been calculated based on the FCC F(50-50) curves.

N. Lat. = 321457 W. Lng. = 1110659						
HAAT and Distance to Contour,						
FCC, FM 2-10 Mi, 51 pts Method - USGS 03 SEC						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	726.7	622.3	0.0429	-13.68	0.378	21.38
045	722.7	626.3	0.1978	-7.04	0.812	31.06
090	744.1	604.9	0.3000	-5.23	1.000	33.98
135	846.7	502.3	0.1305	-8.84	0.660	24.86
180	793.0	556.0	0.0166	-17.81	0.235	15.30
225	743.3	605.7	0.0095	-20.22	0.178	13.55
270	763.5	585.5	0.0189	-17.24	0.251	16.46
315	818.6	530.4	0.0338	-14.71	0.336	18.28
Ave El= 769.83 M HAAT= 579.17 M AMSL= 1349 M						