

# **ENGINEERING REPORT**

## **FM Translator Minor Construction Permit Application**

for

**W244BJ – Frostproof, FL**

License No. BLFT-20061208AAC

Site Change (“Mattoon Waiver”)  
& City of License Change to  
Lakeland, FL

January, 2014

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(Exhibit numbering is in response to FCC Online Form 349, Section III-A)

# Discussion

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This firm has been retained to prepare the required engineering report in support of a minor construction permit application for FM translator W244BJ – Frostproof, FL, License No. BLFT-20061208AAC. W244BJ presently operates on Channel 244D, 96.7 MHz, with 19 watts of non-directional power with an antenna COR of 132 meters AMSL. Operation from a new site location is requested at a higher COR AGL height. Operation on CH244D, 96.7 MHz, with 250 watts ERP at 167 meters AMSL is proposed utilizing a PSI FML-1DA directional antenna. The translator will rebroadcast new primary station WLKF(AM) – Lakeland, FL, 1430 kHz (Facility ID No. 10341) as an AM Fill-In Translator. The Translator will serve the new community of Lakeland, FL.

The translator will be mounted on the existing tower bearing Antenna Structure Registration Number 1040895. A copy of ASR #1040895 has been included in **Exhibit 13.1**. As this Form 349 filing will not increase the overall tower height, notification to the FAA is not believed necessary.

It has been determined the translator may be used in the area without interference to any existing FM broadcast station or facility. General allocation details are found in **Exhibit 13.5**. There are two (2) facilities existing or proposed, close enough to merit further study. Therefore supplemental contour protection studies have been provided toward co-channel protection(s) W244BE – Brandon, FL and WZPH-LP(FM) – Dade City, FL as included in **Exhibit(s) 13.6** and **13.7**. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

The applicant would like to note use of the NED 03 second terrain database for all allocation, contour and HAAT showings contained here-in.

The proposed 60 dB $\mu$  contour of the Fill-In translator lies wholly inside of the WLKF(AM) primary daytime 2.0 mV/m contour and a 25 mile radius around the AM site. A map of the proposed service area in relation to the primary station service contour has been included in **Exhibit 13.4**.

Regarding protection of international concerns, the facility is and will remain more than 320 km from the common border between the United States and Canada and/or Mexico. Therefore, full protection is believed afforded all international concerns. Additional International compliance showings will be supplied upon request.

The proposed service contour will not serve a portion of the present service contour, however the proposed facilities will remain mutually exclusive with the present facilities. As a result, a waiver of §74.1233(a)(1) is requested. A similar waiver of §74.1233(a)(1) was previously granted in the “*Letter to John F. Garziglia, esq. (W263AQ, Mattoon, IL)*,” DA 11-1495, released September 2, 2011 (“Mattoon Decision”) which granted FCC File No. BPFT-20101025ABR. In the Mattoon Decision, a series of four (4) criteria meriting the waiver were noted by the Commission. These four (4) criteria have been met here as well and will be outlined below:

1. No History of Filing Serial Modification Applications (“Translator Hops”). W244BJ – Frostproof, FL, has remained licensed at its present site since 2006. In addition, the Translator has remained licensed to its present community of license, Frostproof, FL, since the original submittal of its 2003 short-form filing. Information concerning the Translator filing history of W244BJ is a matter of record before the Commission and is available for public viewing on CDBS.

2. Mutual Exclusivity. The proposed facilities will remain mutually exclusive with the present facilities. A map of the present to proposed mutually exclusive contour overlap has been included in **Exhibit 13.3**. This mutual exclusivity has also been noted on the **Exhibit 13.5** allocation tabulation study.

3. Concerns raised over LPFM Protection. Full protection will be afforded all LPFM concerns as outlined in the “*Creation of a Low Power Radio Service, Third Further Notice of Proposed Rulemaking*”, 26 FCC RCD 9986 (2011). As this Form 349 application is being filed subsequent to the November 15, 2013 close of the recent LPFM filing window (Public Notice DA 13-2188, released November 14, 2013), protection of Appendix A “Spectrum-Limited” or “Spectrum-Available” Arbitron Markets is no longer required. However, this Form 349 filing will protect all LPFM applications filed during the October 15, 2013 to November 15, 2013 LPFM filing window in addition to all existing LPFM facilities as well.

## Discussion (continued)

4. *Fill-In for AM Station.* The proposed facility will be utilized for the rebroadcast of AM station WLKF(AM) – Lakeland, FL, 1430 kHz (Facility ID No. 10341). A map of the proposed facility in relation to the WLKF(AM) 2 mV/m daytime contour and 25 mile radius around the AM site has been included in **Exhibit 13.4**. In addition, WLKF(AM) has been properly noted as the proposed primary station on the Form 349 itself.

In addition, pursuant to the Mattoon Letter, waiver of §74.1233(a)(1) would be consistent with Commission action in other contexts where it has considered waiver of the minor change rules to be in the public interest (see Mattoon Letter, footnote 5). Here, as in the Mattoon Letter, “a waiver from the Commission is appropriate if special circumstances [fn omitted] warrant a deviation from the general rule, and such deviation would better serve the public interest than strict adherence to the general rule.” here, as in the Mattoon Letter, the “relief requested would not undermine the policy objective of the rule in question, and would otherwise serve the public interest. [fn omitted.]” [Footnotes were omitted from the preceding quotes as they refer to precedent supporting the findings in the Mattoon Letter.]

**RADIATION PROTECTION:** The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

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 17.1** 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 following tabulation of the distances to the proposed service contours results from calculations performed in accordance with §73.313(d) and §73.333 Figure 1.

N. Lat. = 275636.0    W. Lng. = 815444.0						
HAAT and Distance to Contour,						
FCC, FM 2-10 Mi, 51 pts Method - NED 03 SEC						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	40.6	126.4	0.2500	-6.02	1.000	14.43
030	34.4	132.6	0.2500	-6.02	1.000	14.80
060	35.3	131.7	0.2500	-6.02	1.000	14.74
090	33.8	133.2	0.1764	-7.54	0.840	13.56
120	36.9	130.1	0.0506	-12.96	0.450	9.90
150	40.0	127.0	0.0264	-15.78	0.325	8.32
180	56.4	110.6	0.0324	-14.89	0.360	8.19
210	44.1	122.9	0.1225	-9.12	0.700	11.93
240	38.4	128.6	0.2025	-6.94	0.900	13.79
270	37.0	130.0	0.0324	-14.89	0.360	8.87
300	46.0	121.0	0.0756	-11.21	0.550	10.54
330	51.9	115.1	0.2500	-6.02	1.000	13.79
Ave El= 41.23 M    HAAT= 125.77 M    AMSL= 167						