

ENGINEERING REPORT

FM Translator Minor Construction Permit Application

for

W247AJ – Palm Coast, FL

Lic No. BLFT-19980311TF

June, 2009

COPYRIGHT 2009

MUNN-REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

TABLE OF CONTENTS

Discussion of Report

FM Booster/Fill-in Translator Requirements (See Discussion)

Interference Requirements

Exhibit 12.1 - Copy of Existing Antenna Structure Registration

Exhibit 12.2 - Vertical Plan of Antenna System and Support Tower

Exhibit 12.3 - Present vs Proposed Service Contour Study

Exhibit 12.4 - Proposed vs Primary Station Service Contour Study

Contour Overlap Requirements

Exhibit 12.5 - Tabulation of Proposed Allocation

TV Channel 6 Protection Requirements (See Discussion)

Unattended Operation Requirements (See Discussion)

Multiple Translator Requirements (See Discussion)

RF Radiation Study Requirement

Exhibit 16.1 - RF Compliance Study

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

Discussion

This firm has been retained to prepare the required engineering report in support of a minor construction permit application for FM translator W247AJ, Palm Coast, FL License No. BLFT-19980311TF. W247AJ presently operates on 97.3 MHz with 80 watts of non-directional power with an antenna COR of 56 meters AMSL. A frequency change is requested from a new site location with requested operation on CH249D with 80 watt ERP at a COR of 52 meters AMSL. The translator will continue to rebroadcast FM station WYFB(FM), Gainesville, FL CH213C1, facility ID No. 5083.

The existing tower presently holds Antenna Structure Registration Number 1030554. A copy of existing ASR 1030554 has been included in **Exhibit 12.1**. A copy of the vertical antenna system has been included in **Exhibit 12.2**. As this proposal will not increase the overall tower height, it is believed the FAA need not be notified. This proposal will employ a single Shively 6812-B circularly polarized non-directional antenna.

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 12.5**. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

The applicant would like to note the use of the USGS 03 second terrain database for all allocation protection studies as well as all contour and HAAT calculations employed in this Form 349 filing.

The translator site and proposed 60 dBu contour lie completely outside of the WYFB(FM) 60 dBu contour. A map of the proposed service area in relation to the primary station service contour has been included in **Exhibit 12.4**.

Regarding protection of international concerns, the facility is and will remain more than 320 km of the common border between the United States and Canada or Mexico. As a result, no further international showings are required.

The proposed operating parameters have been changed from the licensed values, however the proposed service contour serves a portion of the present service area as seen in **Exhibit 12.3**.

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 §1.1310 of the Commission's rules. **Exhibit 16.1** provides the details of the study that was made to demonstrate compliance. The facility is properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates. 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.

Discussion (continued)

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 utilizing the USGS 03 second terrain database.

N. Lat. = 293316.0 W. Lng. = 811145.0						
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	0.6	51.4	0.0800	-10.97	1.000	6.95
030	0.2	51.8	0.0800	-10.97	1.000	6.98
060	0.0	52.0	0.0800	-10.97	1.000	6.99
090	0.0	52.0	0.0800	-10.97	1.000	6.99
120	0.0	52.0	0.0800	-10.97	1.000	6.99
150	0.7	51.3	0.0800	-10.97	1.000	6.94
180	7.1	44.9	0.0800	-10.97	1.000	6.47
210	7.5	44.5	0.0800	-10.97	1.000	6.45
240	7.4	44.6	0.0800	-10.97	1.000	6.45
270	8.8	43.2	0.0800	-10.97	1.000	6.35
300	7.4	44.6	0.0800	-10.97	1.000	6.45
330	5.1	46.9	0.0800	-10.97	1.000	6.62
Ave El= 3.74 M HAAT= 48.26 M AMSL= 52						