

Engineering Statement in support of
FCC FORM 349
APPLICATION FOR AUTHORITY TO
CONSTRUCT OR MAKE CHANGES
IN AN FM TRANSLATOR
(For Minor Change to a Licensed Facility)
W258BF, Facility ID 151917

Introduction:

This is an application by GLK Consultants LLC (the Applicant) for a minor change to W258BF, Facility ID 151917.

The applicant requests processing under the displaced translator policy. The justification for this request is a change by WLOV-FM which has resulted in a major increase in interference in W258BF's service area. See Displacement Exhibit.

The applicant proposes the following changes:

- Move the Facility to channel 280.

The proposal's 100dBu interfering contour is contained within the service contour of third-adjacent station WOKV-FM. A desired-to-undesired ratio study shows that there are no areas of interference. That is, there are no areas where the proposal's signal exceeds WOKV-FM's by 40dB or more. WOKV-FM's 73dBu F(50:50) contour completely encloses the proposal's 100dBu contour, therefore the threshold of interference is $73 + 40\text{dB}$ or 113dB.

Using the manufacturer's antenna elevation information for a two-bay, full-wave spaced antenna, the boundary of interference, where the proposed signal exceeds the protected signal by more than 40dB, is always greater than 12-meters, see the interference exhibit.

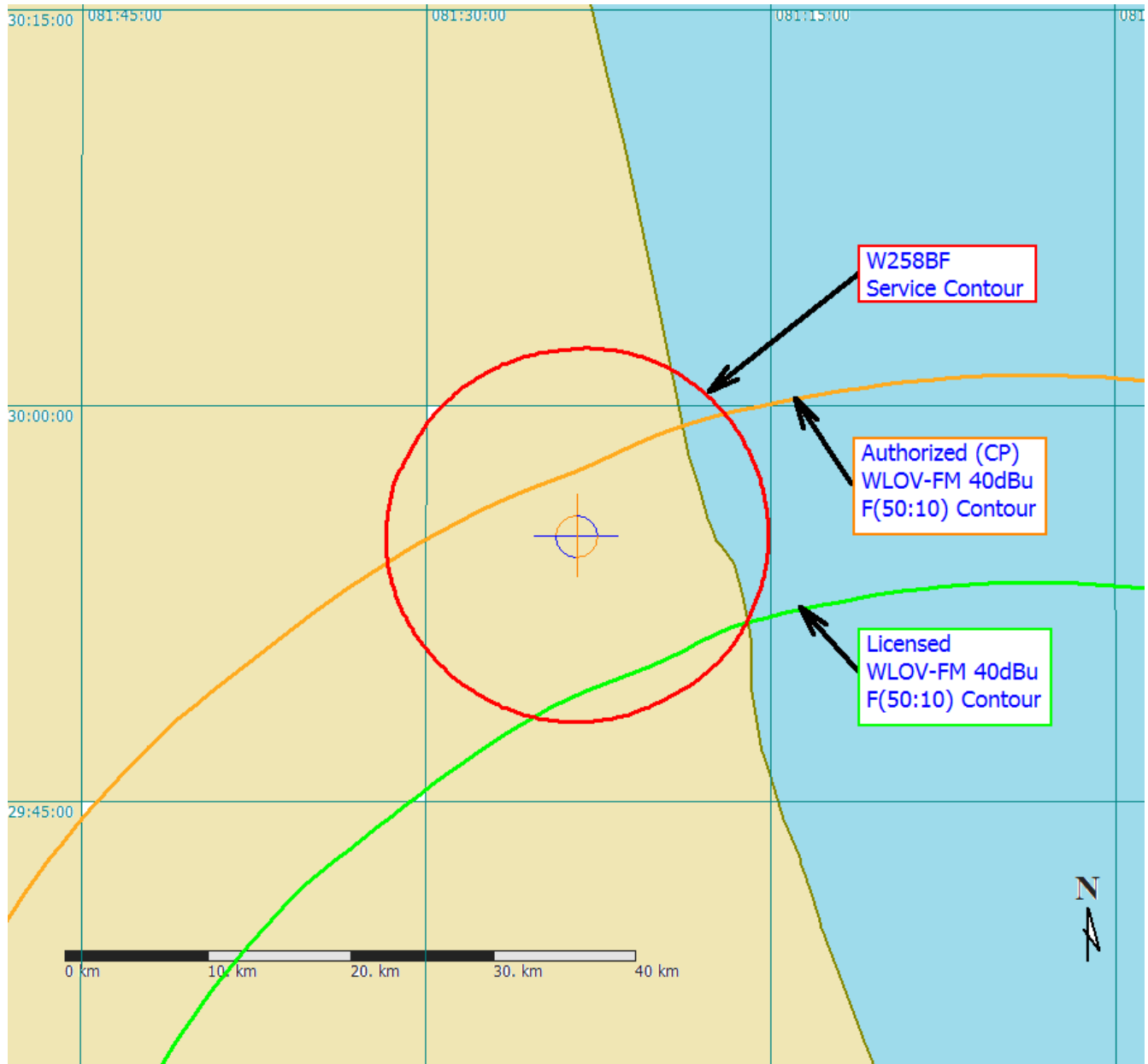
This application was prepared using FCC 30-arc-second terrain data.

Section III-A Engineering Data:

Tech Box Data:

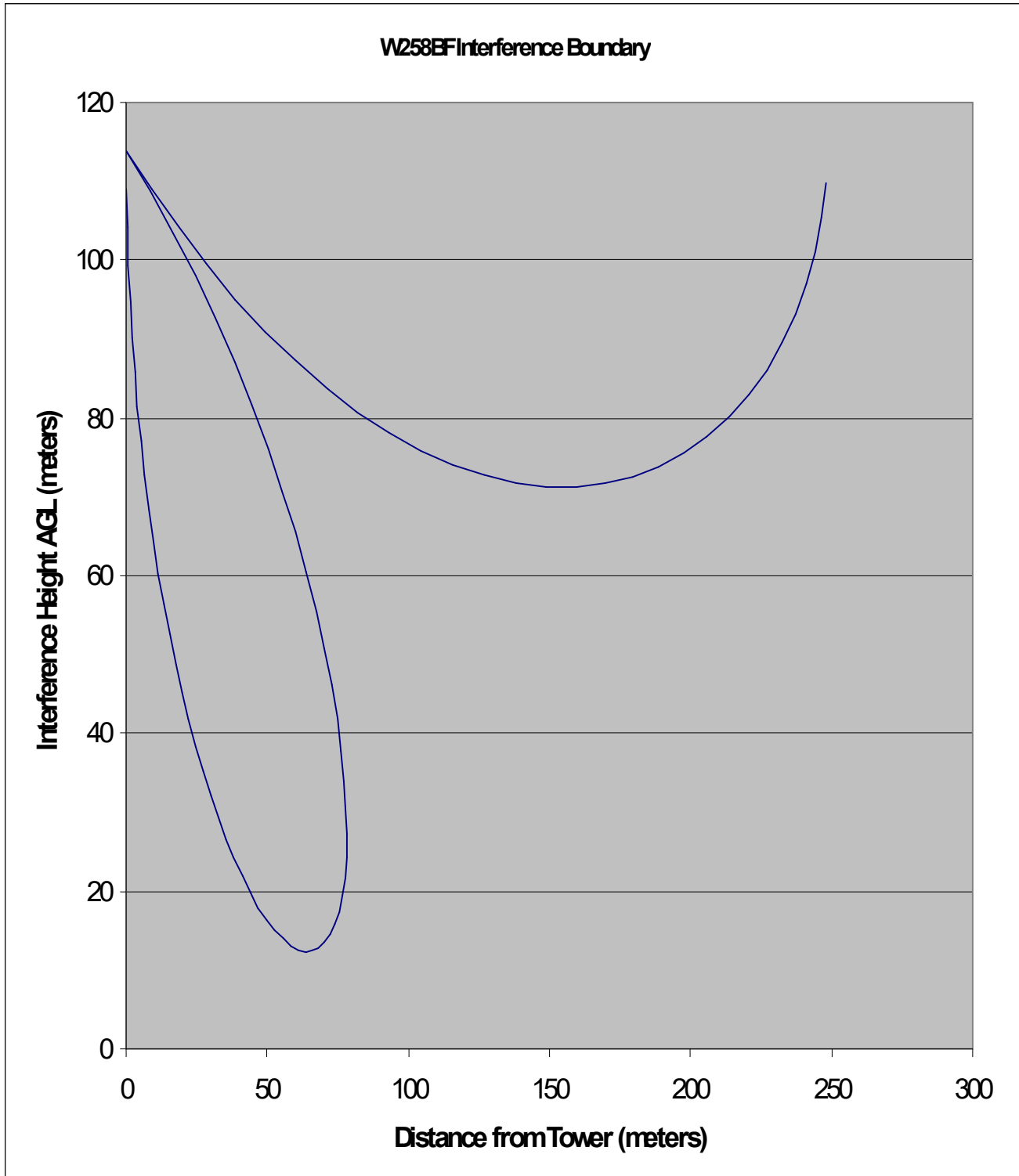
1. Channel: 280
2. Primary Station: Facility ID 70404, Callsign WSOS, St. Augustine Beach, FL, 1170 KHz
3. Delivery Method: Direct (collocated facilities)
4. Antenna Location Coordinates: 29° 55' 05" N (NAD-27)
081° 23' 26" W
5. Antenna Structure Registration Number: 1028567
6. Antenna Location Site Elevation: 10.8 meters AMSL
7. Overall Tower Height: 117.3 meters AGL
8. Height of Radiation Center: 114 meters (H) - 114 meters (V) AGL
9. Effective Radiated Power: 0.240 kW (H) - 0.240 kW (V)
10. Transmitting Antenna: Two-bay, full wave spaced, circularly polarized
11. Booster or Fill-in within protected contour: Yes.
12. Interference: No. Overlap with WOKV-FM
 - a) Contour Overlap Requirements: Checked.
 - b) TV Channel 6 Protection: Not Checked.
13. Unattended Operation: Yes
14. Multiple Translators: Yes
15. NEPA, Yes.
 - a) Operation of this facility will not have a significant environmental impact. The site is an existing AM broadcast tower. To the best knowledge of the Applicant:
 1. The structure is not located in an officially designated wilderness area or wildlife preserve, nor does it threaten the existence or habitat of endangered species.
 2. The proposed changes will not affect districts, sites, buildings, structures or objects significant in American history, architecture, engineering or culture that are listed in the National Register of Historic Places, or eligible for listing.
 3. The site is not located in a flood plain. Nothing is proposed that would require significant changes in surface features such as wetland fill, deforestation or water diversion.
 4. The existing structure meets the FAA required painting and lighting specifications as stated on Antenna Structure Registration Document #1028567.
 - b) The Applicant will cooperate with all site users, managers and owners with regard to the cessation of operation or the reduction of operating power, whenever it is necessary to comply with the FCC Regulations and Guidelines on Human Exposure to Non-Ionizing RF Radiation.
 - c) RF Worksheet #1, which assumes an isotropic antenna model, predicts the RF level on the ground near the WSOS-AM tower will be approximately 0.13% of the maximum allowed value. If the vertical pattern of the antenna were to be factored in the rf level would be essentially zero.

Displaced Translator Exhibit



Interference increased from 5.6% to 69.8% of the service area.

No Interference to WOKV-FM



RFR Exhibit

RF Worksheet #1-FM

| Ref Line # | | | |
|------------|-------------------|-----------|------------|
| | | | |
| (1) | Rad Center Height | 114.000 | Meters AGL |
| (3) | Building Height | 0.000 | Meters AGL |
| (4) | Clearance Height | 114.000 | Meters AGL |
| (5) | Head Height | 112.000 | Meters AGL |
| | | | |
| (6) | Horizontal ERP | 0.240 | kW |
| (7) | Vertical ERP | 0.240 | kW |
| (8) | Total Power | 0.480 | kW |
| | | | |
| (9) | Power x 33.41 | 16.037 | |
| (10) | line 5 squared | 12544.000 | |
| (11) | Line-9 / Line-10 | 0.001 | |
| (12) | Percent Exposure | 0.128 | % |