

**KNRG (FM)**  
**Channel 222C3 – 92.3 MHz**  
**12 kW ERP – 145 m HAAT**  
**New Ulm, Texas**  
October 2014

**§73.315 Compliance from Class C3 Reference Site Utilizing §73.313(e)**

This application proposes to upgrade KNRG (FM) at New Ulm, TX from Class A to Class C3 through the “one step” upgrade process. The proposed site for KNRG (FM) is short spaced to KQVT (FM) on Channel 222A at Victoria, TX, so §73.215 processing is requested.

From the KNRG (FM) Class C3 allocation reference site of North Latitude 30° 02’ 15” and West Longitude 96° 49’ 30”, the circular 70 dBu contour (23.2 km) does not cover 100 percent of New Ulm, TX, the community of license. However, in this particular case, we find that a supplemental method of depicting city grade coverage as noted in §73.313(e) of the Commission’s Rules would be appropriate. Under the provisions of *Woodstock*, the applicant has received reasonable assurance from the land owner to construct a tower at the reference site and has submitted a Form 7460-1 Notice of Proposed Construction to the FAA (ASN 2014-ASW-7218-OE)<sup>1</sup>. A copy of the Form 7460-1 is attached.

From the reference site, a maximum Class C3 equivalent facility was used. The technical parameters used from this site are: 12.5 kW ERP, 145 m Center of Radiation AGL, 264 m Center of Radiation AMSL and 143 m HAAT.

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<sup>1</sup> See *Woodstock and Broadway, Virginia*, 3 FCC Rcd 6398 (1988).

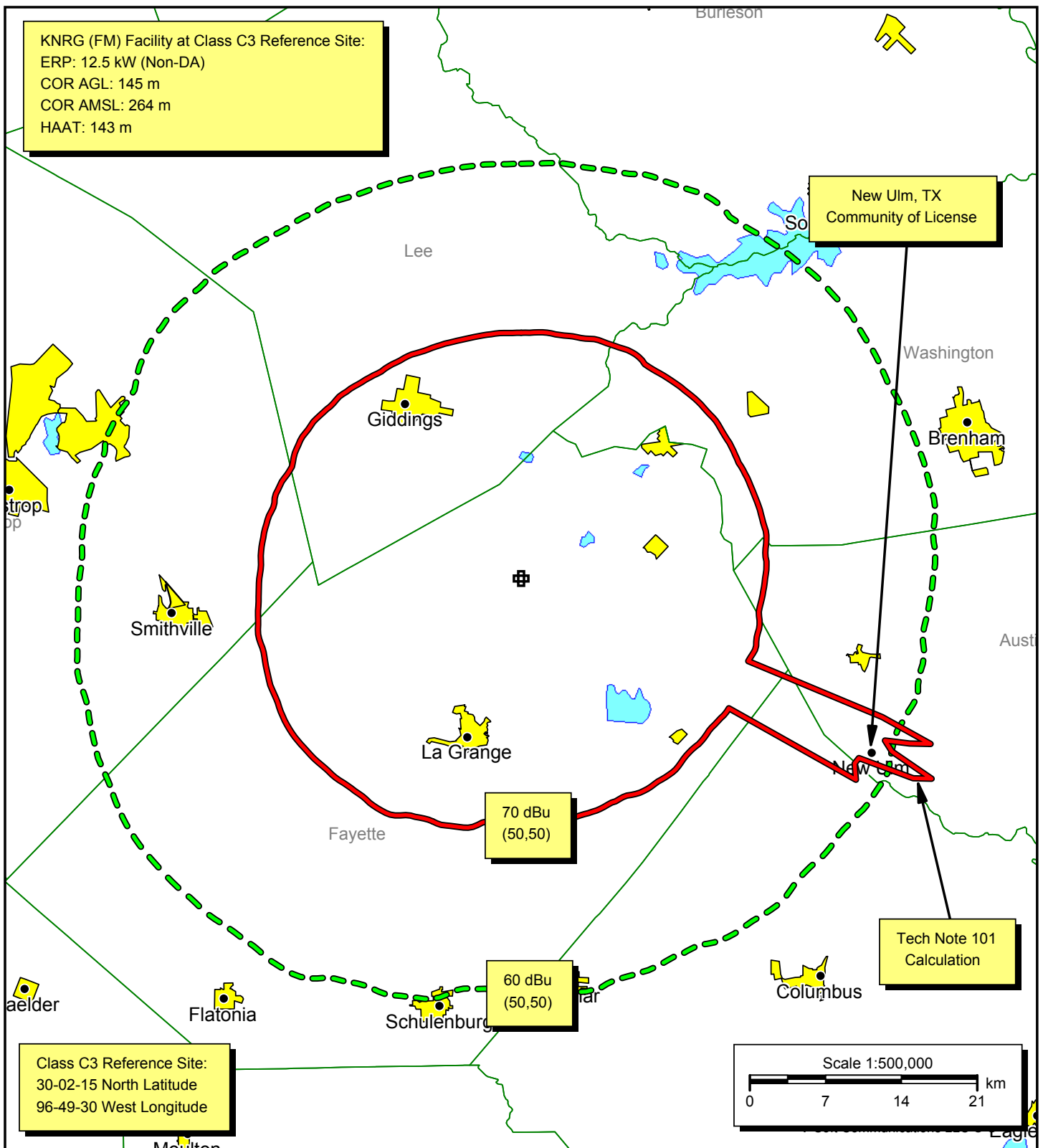
New Ulm, TX is within an arc between 111° and 121° from the KNRG (FM) reference site. Utilizing the Commission's F(50,50) curves, the 70 dBu contour falls short of covering 100 percent the city of license. The community of New Ulm is completely inside the traditional 60 dBu contour.

We alternatively have determined the location of the 70 dBu contour using the Longley-Rice prediction method. This methodology, purchased from V-Soft Communications in a program called "Probe 3" was used to produce this Technical Note 101 study. In this particular situation, coverage calculations for the 70 dBu contour have been made in a point-to-point mode (mean occurrence drop-off). The following table is a comparison of the standard FCC method of calculating the 70 dBu and the Longley-Rice method. In all cases, the Longley-Rice method exceeds the FCC method greater than 10%.

<u>Radial (Bearing)</u>	<u>Location of 70 dBu (FCC Method) in km</u>	<u>Location of 70 dBu (Longley-Rice Method) in km</u>	<u>Percent Change</u>	<u>Gain (km)</u>
111°	22.35	35.70	59.73	13.35
112°	22.16	40.75	83.89	18.59
113°	22.19	38.95	75.53	16.76
114°	22.25	36.75	65.17	14.50
115°	22.34	37.75	68.98	15.41
116°	22.44	42.15	87.83	19.71
117°	22.58	40.60	79.81	18.02
118°	22.68	35.30	55.64	12.62
119°	22.68	35.20	55.20	12.52
120°	22.65	35.60	57.17	12.95
121°	22.62	36.05	59.37	13.43

Also in this exhibit is a graphic depiction of the KNRG (FM) normally calculated 60 and 70 dBu contours, the Technical Note 101 contour, the KNRG (FM) reference site and New Ulm, TX, the community of license. This map was drawn using "Probe 3" from V-Soft Communications.

Based on this supplemental depiction, we find that the community of New Ulm, TX is served by the city grade contour from the KNRG (FM) reference site in compliance with §73.315 of the Commission's Rules.



## Community Coverage from Class C3 Reference Site

**KNRG (FM)**

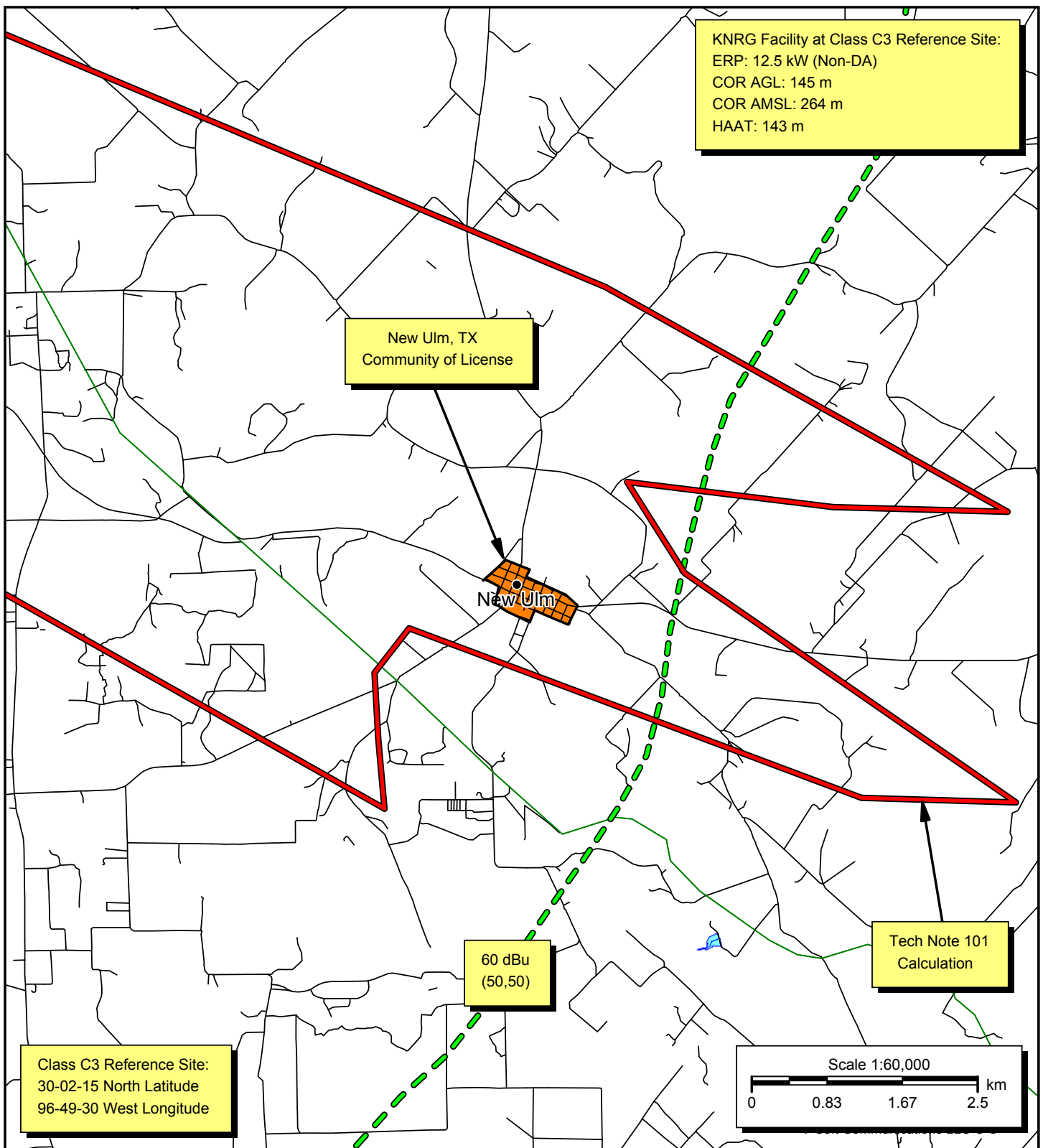
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New Ulm, Texas

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## Detailed Community Coverage from Class C3 Reference Site

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Federal Aviation  
Administration

The site will be down for scheduled maintenance Wednesday 10/08/2014 from 9:00PM to 9:30PM ET

[« OE/AAA](#)**Notice of Proposed Construction or Alteration - Off Airport**[Add a new Case Off Airport - Desk Reference Guide V\\_2014.3.0](#)

Project Name: ROY E-000291174-14

Sponsor: Roy E. Henderson

**Details for Case : Warda, TX Tower**[Show Project Summary](#)**Case Status**

ASN: 2014-ASW-7218-OE

Status: Accepted

Public Comments: None

Date Accepted: 10/07/2014

Date Determined:

Letters: None

Documents: None

Project Documents:  
None**Construction / Alteration Information**

Notice Of: Construction

Duration: Permanent

**if Temporary :** Months: Days:

Work Schedule - Start:

Work Schedule - End:

*\*For temporary cranes-Does the permanent structure require separate notice to the FAA?  
To find out, use the Notice Criteria Tool. If separate notice is required, please ensure it is filed.  
If it is not filed, please state the reason in the Description of Proposal.*

State Filing:

**Structure Details**

Latitude: 30° 2' 15.40" N

Longitude: 96° 49' 30.60" W

Horizontal Datum: NAD83

Site Elevation (SE): 390 (nearest foot)

Structure Height (AGL): 499 (nearest foot)

Current Height (AGL): (nearest foot)

*\* For notice of alteration or existing provide the current  
AGL height of the existing structure.  
Include details in the Description of Proposal*

Max Operating Height (AGL): (nearest foot)

*\* For aeronautical study of a crane or construction equipment  
the maximum height should be listed above as the  
Structure Height (AGL). Additionally, provide the maximum  
operating height to avoid delays if impacts are identified that  
require negotiation to a reduced height. If the Structure Height  
and maximum operating height are the same enter the same  
value in both fields.*

Nacelle Height (AGL): (nearest foot)

*\* For Wind Turbines 500ft AGL or greater*

Requested Marking/Lighting: Red lights and paint

**Other :**

Recommended Marking/Lighting:

Current Marking/Lighting: N/A Proposed Structure

**Other :**

Nearest City: Warda

Nearest State: Texas

Description of Location: 5.4 miles east southeast of  
Warda, TX

Description of Proposal: New 499-foot antenna tower

**Structure Summary**

Structure Type: Antenna Tower

Structure Name: Warda, TX Tower

FDC NOTAM:

NOTAM Number:

FCC Number:

Prior ASN:

**Common Frequency Bands**

Low Freq	High Freq	Freq Unit	ERP	ERP Unit
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**Specific Frequencies**

Low Freq	High Freq	Freq Unit	ERP	ERP Unit
92.3	92.3	MHz	12.5	kW