

**KRBL(FM) 289A
One-Step to C3 Application**

This technical report is submitted for a one-step 289C3 upgrade to KRBL(FM) 289A at Idalou, TX, FCC file no. BLH-19960111KH.

The following exhibits are provided for the form 301 application:

- E-1 KRBL(FM) 289C3 Spacing Study
- E-2 Interference Plot to KFLP-FM 291C3
- E-3 Fully-Spaced Reference Spacing Study
- E-4 Reference Point Topographic Map
- E-5 Fully-Spaced Reference Plot
- E-6 HAAT Calculation
- E-7 KRBL(FM) 289C3 70 dBu Community Coverage Plot
- E-8 Tower ASR 1053669

KRBL(FM) 289C3 Upgrade Analysis:

Exhibit E-1 shows the KRBL(FM) facility will be fully-spaced, with the exception to KFLP-FM 291C3 Floydada, TX, FCC facility I.D. 57025. As a result, it is requested that KRBL(FM) to be designated as a 72.215 facility. An interference plot (exhibit E-2) shows the upgrade will not cause any interference overlap.

A fully-spaced reference point spacing study, reference point topographic map, and a 70 dBu (23.24 km) circle plot showing coverage of the Idalou, TX community of license are included in exhibits E-3 to E-5 for the C3 upgrade.

NEW 281C3 Antenna System:

The facility is to be located on the existing tower, ASR 1053669, at coordinates:

33-39-47N 101-35-52W NAD27.

It will operate at an ERP of 25.0 kW at a COR AGL of 82 meters, 1052 meters AMSL, and 87 meter HAAT (exhibit E-6), using a six bay ERI SNS-6E full-wavelength nondirectional antenna. Exhibit E-7 shows the 289C3 facility will place a 70 dBu contour completely over the Idalou, TX city boundary community of license.

RF Exposure Calculation:

The RF was calculated using the Commission's FMMODEL program. The six bay ERI antenna at a COR AGL of 82 meters and 25.0 kW ERP results in an RF of 17.81 $\mu\text{W}/\text{cm}^2$ at a distance of 25 meters from the base of the tower, which is well below the 200 $\mu\text{W}/\text{cm}^2$ maximum permissible for general public exposure.

Conclusion:

It is submitted the one-step upgrade to C3 application for KRBL(FM) 289A is in full compliance with the Commission rules and policies.



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E-1 KRBL(FM) Spacing Study

REFERENCE

33 39 47.0 N.
101 35 52.0 W.

CLASS = C3

Current Spacings to 3rd Adj.

DISPLAY DATES

DATA 09-04-13

SEARCH 09-05-13

----- Channel 289 - 105.7 MHz -----

Call		Channel	Location		Azi	Dist	FCC	Margin
KRBL	LIC	289A	Idalou	TX	0.0	0.00	141.5	-141.5
KFLP-FM	LIC-N	291C3	Floydada	TX	33.5	40.74	42.5	-1.8(1)
KJDL-FM	LIC-N	287C2	Levelland	TX	241.7	55.90	55.5	0.40
KJJP	LIC	289C2	Amarillo	TX	352.9	182.59	176.5	6.1
1563959	APP	288D	Plainview	TX	346.3	59.96	48.5	11.5
1568768	APP	288D	Plainview	TX	346.3	59.96	48.5	11.5
KSEL-FM	LIC	290C1	Portales	NM	293.9	164.92	143.5	21.4
AL4618	VAC	236C1	Hale Center	TX	2.7	61.61	23.5	38.1
K291BD	LIC	291D	Brownfield	TX	230.0	84.00	40.5	43.5

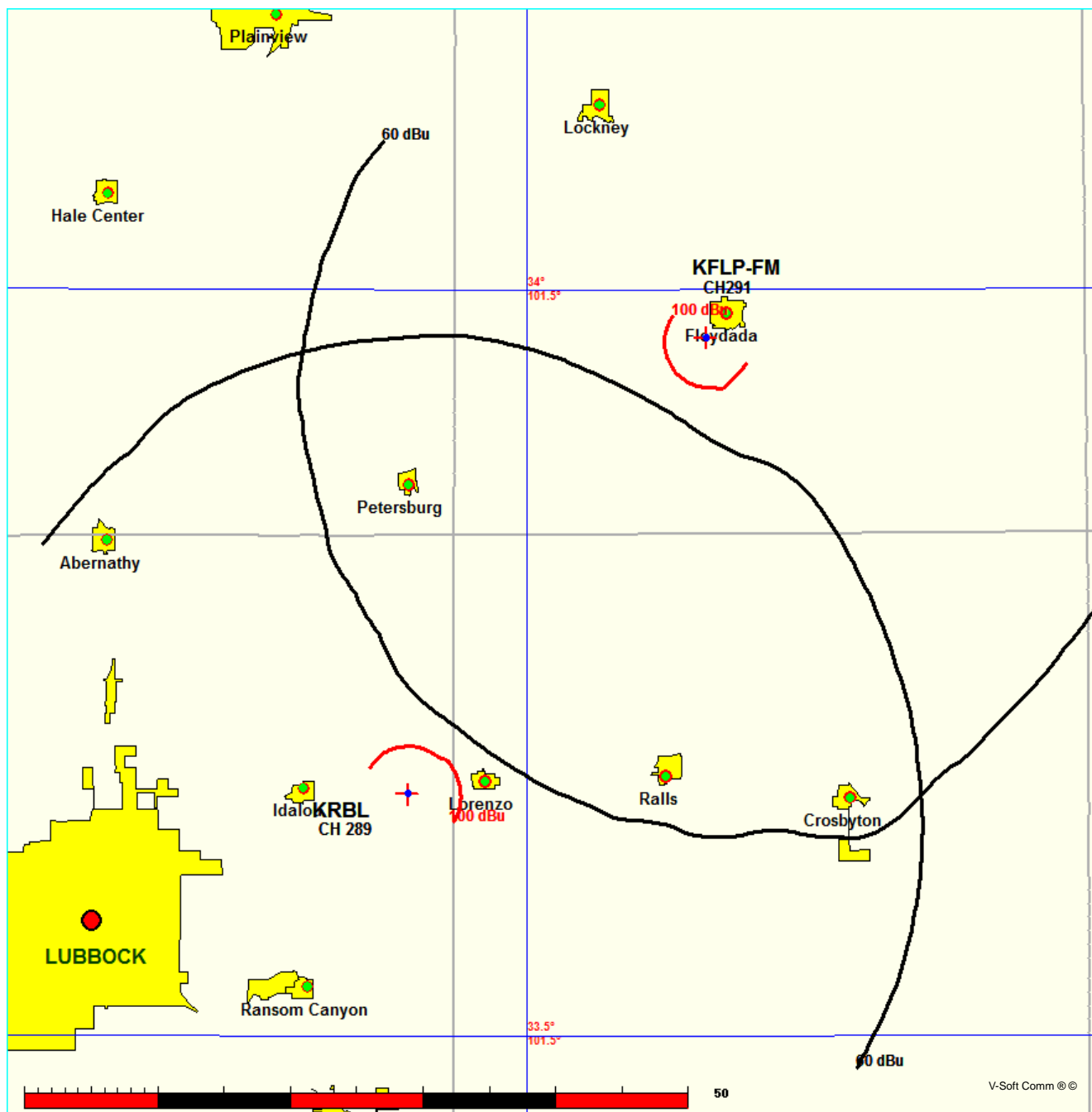
- (1) The KRBL(FM) one-step upgrade to C3 is to be designated as a 73.215 short-spaced facility with respect to KFLP-FM 291C3 at Floydada, TX, FCC facility I.D. 57025.

E-2 KRBL(FM) Interference Plot to KFLP-FM 291C3

FMCommander Single Allocation Study - 09-05-2013 - FCC NGDC 30 Sec
KRBL's Overlaps (In= 0.0 km, Out= 0.0 km)

KRBL CH 289 C3 73.215 N
Lat= 33 39 47.0, Lng= 101 35 52.0
25.0 kW 87 M HAAT, 1052 M COR
Prot.= 60 dBu, Intef.= 100 dBu

KFLP-FM CH 291 C3 73.215 N BLH20010824AAK
Lat= 33 58 07.0, Lng= 101 21 15.0
25.0 kW 71 M HAAT, 1033 M COR
Prot.= 60 dBu, Intef.= 100 dBu



E-3 KRBL(FM) 289C3 Fully-Spaced Reference Point

REFERENCE

33 37 53.0 N.

CLASS = C3

DISPLAY DATES

DATA 09-09-13

101 34 49.0 W.

Current Spacings to 3rd Adj.

SEARCH 09-09-13

----- Channel 289 - 105.7 MHz -----

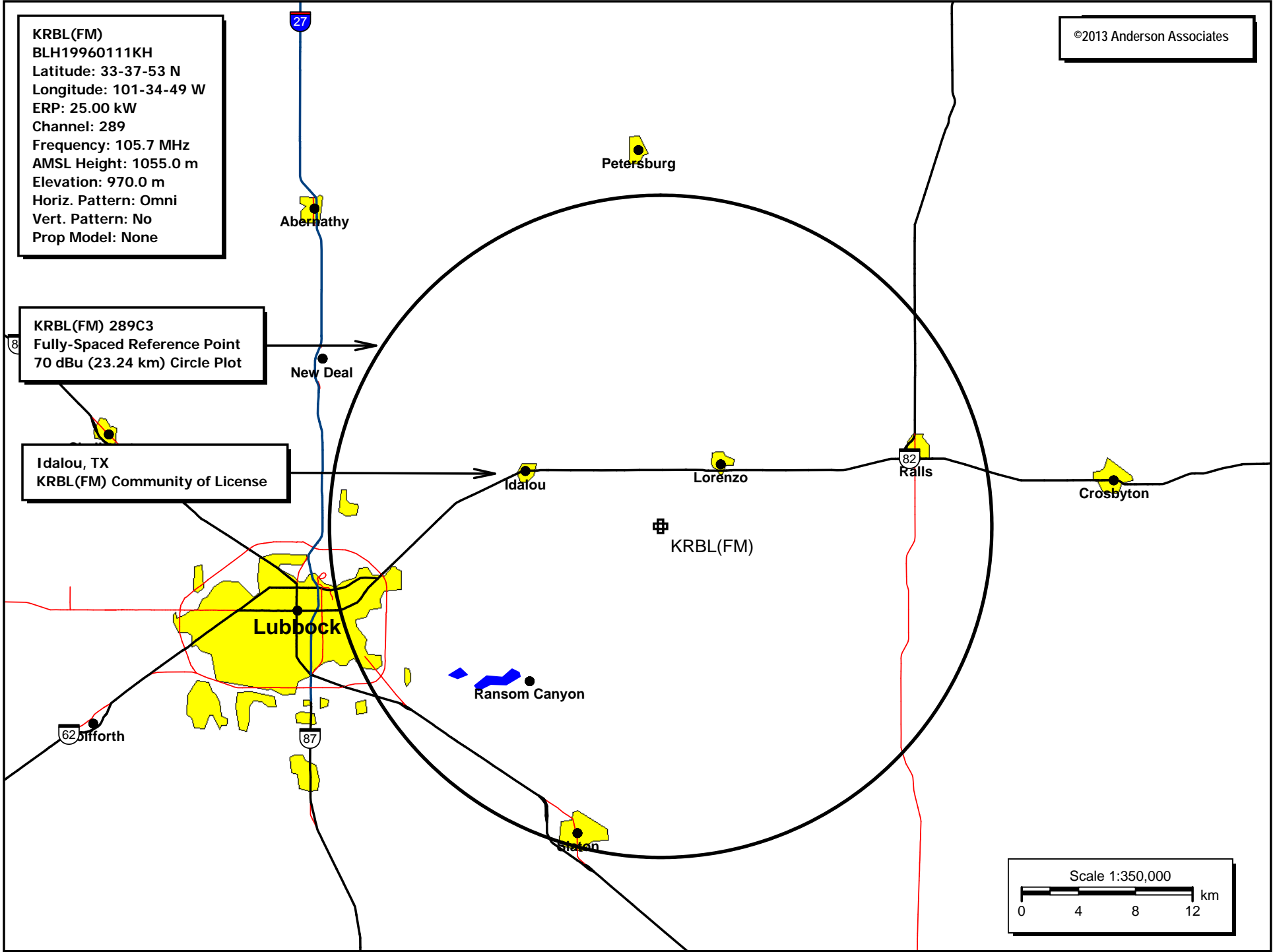
Call		Channel	Location		Azi	Dist	FCC	Margin
KRBL	LIC	289A	Idalou	TX	335.3	3.86	142.0	-137.6
KFLP-FM	LIC-N	291C3	Floydada	TX	29.1	42.86	43.0	0.36
KJDL-FM	LIC-N	287C2	Levelland	TX	245.7	55.87	56.0	0.37
KJJP	LIC	289C2	Amarillo	TX	352.5	185.88	177.0	9.4
1568768	APP	288D	Plainview	TX	345.6	63.63	49.0	15.1
1563959	APP	288D	Plainview	TX	345.6	63.63	49.0	15.1
KSEL-FM	LIC	290C1	Portales	NM	294.7	168.11	144.0	24.6
AL4618	VAC	236C1	Hale Center	TX	1.1	64.92	24.0	41.4
K291BD	LIC	291D	Brownfield	TX	232.5	83.11	41.0	42.6

All separation margins include rounding

E-4 KRBL(FM) Fully-Spaced Reference Point Topographic Map



E-5 KRBL(FM) 289C3 Fully-Spaced Reference Plot



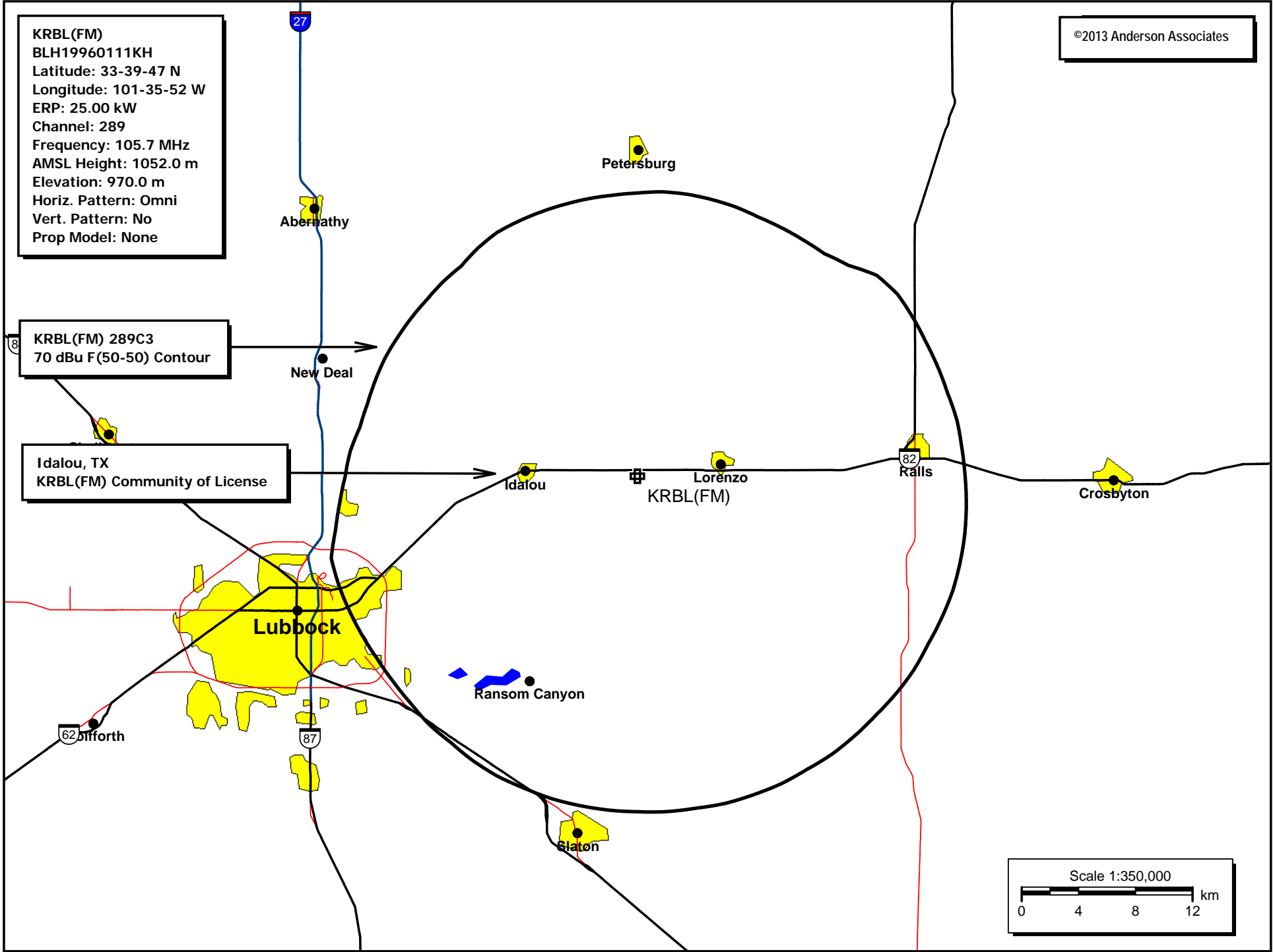
E-6 KRBL(FM) 289C3 HAAT Calculation

N. Lat. = 333947 W. Lng. = 1013552
HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - FCC 30 SEC

Azi.	AV EL	HAAT	ERP kW	60-F5
000	979.0	73.0	25.0000	33.93
045	971.0	81.0	25.0000	35.60
090	954.2	97.8	25.0000	38.71
135	948.0	104.0	25.0000	39.73
180	949.3	102.7	25.0000	39.52
225	958.3	93.7	25.0000	38.01
270	974.3	77.7	25.0000	34.93
315	983.4	68.6	25.0000	32.99

Ave El= 964.67 M HAAT= 87.33 M AMSL= 1052 M

E-7 KRBL(FM) 289 C3 70 dBu Contour Plot



E-8 KRBL(FM) Tower ASR

Registration 1053669

Registration Detail

Reg Number	1053669	Status	Constructed
File Number	A0063107	Constructed	09/01/1995
EMI	No	Dismantled	
NEPA	No		

Antenna Structure

Structure Type TOWER - Free standing or Guyed Structure used for Commu

Location (in NAD83 Coordinates)

Lat/Long	33-39-47.0 N 101-35-54.0 W	Address	6.8 KM E
City, State	IDALOU , TX		
Zip	79329	County	LUBBOCK
Center of AM Array		Position of Tower in Array	

Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
969.8	101.0
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
1070.8	100.0

Painting and Lighting Specifications

FAA Chapters 4, 6, 13

Paint and Light in Accordance with FAA Circular Number 70/7460-1H

FAA Notification

FAA Study	95-ASW-2051-OE	FAA Issue Date	11/20/1995
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Owner & Contact Information

FRN	Owner Entity Type
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Owner

TRIUMPH COMMUNICATIONS INC	P: (606)885-5500
Attention To: CHARLIE THOMPSON	F:
6915 HARRODSBURG RD	E:
NICHOLASVILLE , KY 40356-8722	

Contact

P:
F:
E:

Last Action Status

Status	Constructed	Received	07/01/1998
Purpose	New	Entered	07/02/1998