

2018

2018/11/14

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OCT 10 2018  
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# WAPA →RADIO

2018 OCT 10 PM 2:18

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303

October 5, 2018

Mrs. Marlene H. Dortch, Secretary  
Office of the Secretary  
FEDERAL COMMUNICATIONS COMMISSION  
445 12<sup>th</sup> St., S. W.  
Washington, D. C. 20554

RE: APPLICATION FOR LICENSE  
WVOZ-AM AGUADILLA, PR  
Curative Amendment for FCC-302AM  
BL-20180911ADH : FRN: 72452

0007753668

Enclosed please find, in triplicate (original and two copies) of a CURATIVE AMMENDMENT required by the Audio Division of the Media Bureau by letter dated Sept. 6, 2018.

Please send us back the first page of this Curative Ammendment (front page) marked as 'receipt copy' stamped by your Office in the pre-postaged envelope included.

Very truly yours,

*Wilfredo G. Blanco P.*  
ENG. WIFREDO G. BLANCO-PI  
Licensee WVOZ-AM

**WAPA-680-AM**      **WMIA-1070-AM**      **WISO-1260-AM**      **WTIL-1300-AM**      **WVOZ-1580-AM**  
**San Juan**                  **Arecibo**                  **Ponce**                  **Mayagüez**                  **Aguadilla**

**WXRF-1590-AM**  
**Guayama**

**LA PODEROSA CADENA WAPA RADIO**

**CURATIVE AMMENDMENT FOR APPLICATION FOR  
LICENSE (302-AM)**

**WVOZ-AM AGUADILLA, PUERTO RICO**

**1580 kHz., 1.0 kW DA-D / 1.0 kW NDA-N, U**

**BL-20180911ADH (CP:BP-20170327AAF)**

**October 5, 2018**

Changes made to EE -Proof of Performance:

1. ADD Fig. 1 (Sheet 5A & B of 12): Engineering Statement Addendum to explain the ammendments and take care of deficiencies raised by the FCC.
2. REPLACE NEW Fig. 2 (Sheet 2 of 2) that includes IF (Non-DA) column
3. ADD Fig. 4 (Sheet 1A: Family of Curves for 1520-1600Khz.)
4. REPLACE NEW Fig. 4 (Sheet 2-17 Graphs for each radial ND and DA)
5. REPLACE NEW Fig. 6 (Sheet 3 of 5) Daytime Pattern Description for MP

**ENGINEERING EXHIBIT - APPLICATION FOR LICENSERADIO STATION WVOZ-AM AGUADILLA, P.R.**

**1580KHZ., 1.0 KWD, 1.0 KW/NDA-N, U**

**BL-20180911ADH (BP-20170327AAF) OCTOBER 5, 2018** (curative amendment)

**ENGINEERING STATEMENT (ADDENDUM): FIGURE 1 (Sheet 5A of 12)**

On September 6, 2018 FCC granted program tests in a letter pointing out three deficiencies in the ENGINEERING EXHIBIT (Proof of Performance) after an email containing a PDF copy of 302-AM was submitted. The deficiencies raised were the following:

1. *The family of curves used to analyze the measurements must be submitted.*
2. *The values of the measured non-directional in figure 2, Summary of Measured Field Strength data, differ from the values specified on the nondirectional conductivity graphs.*
3. *Please provide the name of the street of the monitoring point location.*

#1: By mistake, the secretary included as Figure 4 the incorrect set of graphs. The graphs that were included were an analysis tool and not the final graphs. The graphs incorrectly sent were used during the analysis process to figure out what the value for the points measured should most likely be after figuring out the attenuation curves by the best-fit method. That information was used to measure again most of the points that didn't fit on the conductivity curves selected for each radial to ensure the measurements originally taken were correct and that no error was made finding the correct point location and/or when taking the measurements.

The correct set of graphs is included for non-directional and directional. As you will see the conductivity curves chosen by the best-fit method are basically the same as the ones incorrectly sent. Although the email containing the PDF to the FCC was sent on Sept. 6/2018 and that same day the FCC emails back to us with the deficiencies, the paper filed copy was exactly the same as the one sent by email, since a curative amendment was immediately required by the FCC.

By this means, it is respectfully requested that the correct set of graphs along with the family of curves used to analyze them be made part of this curative amendment. (Please substitute the new set of graphs for each radial and insert Fig. 1 (Sheet 5A of 12: Family of curves for 1520-1600 downloaded from FCC page).

#2: In addition a new Figure 2 (Sheet 2 of 2: Summary of measured field strength data) is being supplied. The substitute page has a new column "IF FIELD Non-DA" containing the values

for each radial. Please use this page instead of the originally supplied.

**ENGINEERING EXHIBIT - APPLICATION FOR LICENSE - RADIO STATION WVOZ-AM AGUADILLA P.R.**

1580KHZ., 1.0 KWD, 1.0 KW NDA-N, U

BL-20180911ADH (BP-20170327AAF) - OCTOBER 5, 2018 [curative amendment]

**ENGINEERING STATEMENT ADDENDUM: Figure 1 (Sheet 5B of 12):**

#3: The monitor point is located at km. 0.32 of PR-4441. It is not a street. It is a road with houses just in front of the monitoring point. That's why a name was not supplied. Incorrectly Fig. 6 (Sheet 3 of 5) states: "The MONITOR POINT is just crossing the street" it should be: "crossing the road". A new page with this change is supplied. Please substitute it in the EE.



ENG. WIFREDO G. BLANCO-P.I

October 5, 2018

ENGINEERING EXHIBIT - APPLICATION FOR LICENSE  
RADIO STATION WVOZ, AGUADILLA P.R.  
1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

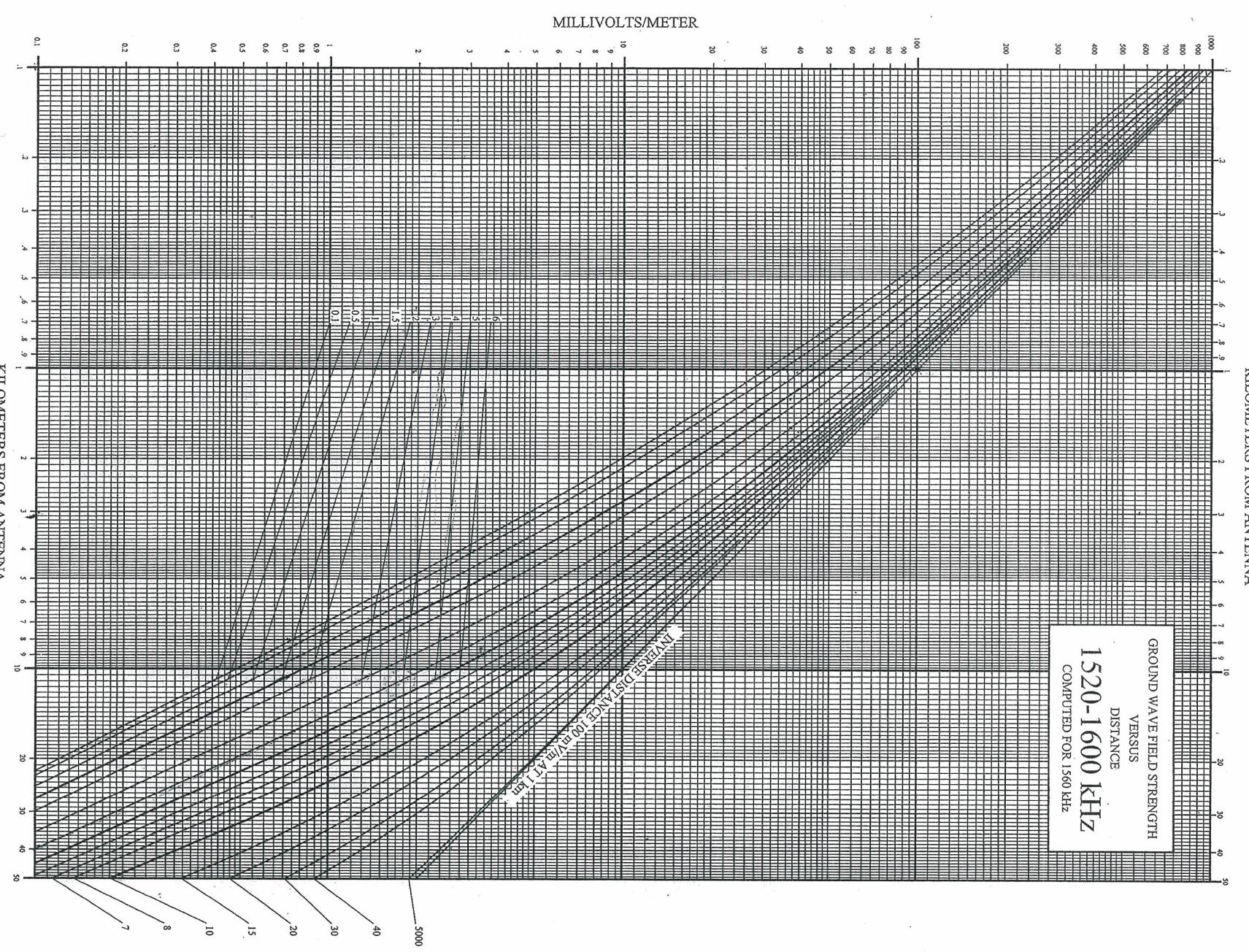
FIGURE 2 (Sheet 2 of 2)  
BP-20170327AAF  
30-Aug-18

## SUMMARY OF MEASURED FIELD STRENGTH DATA

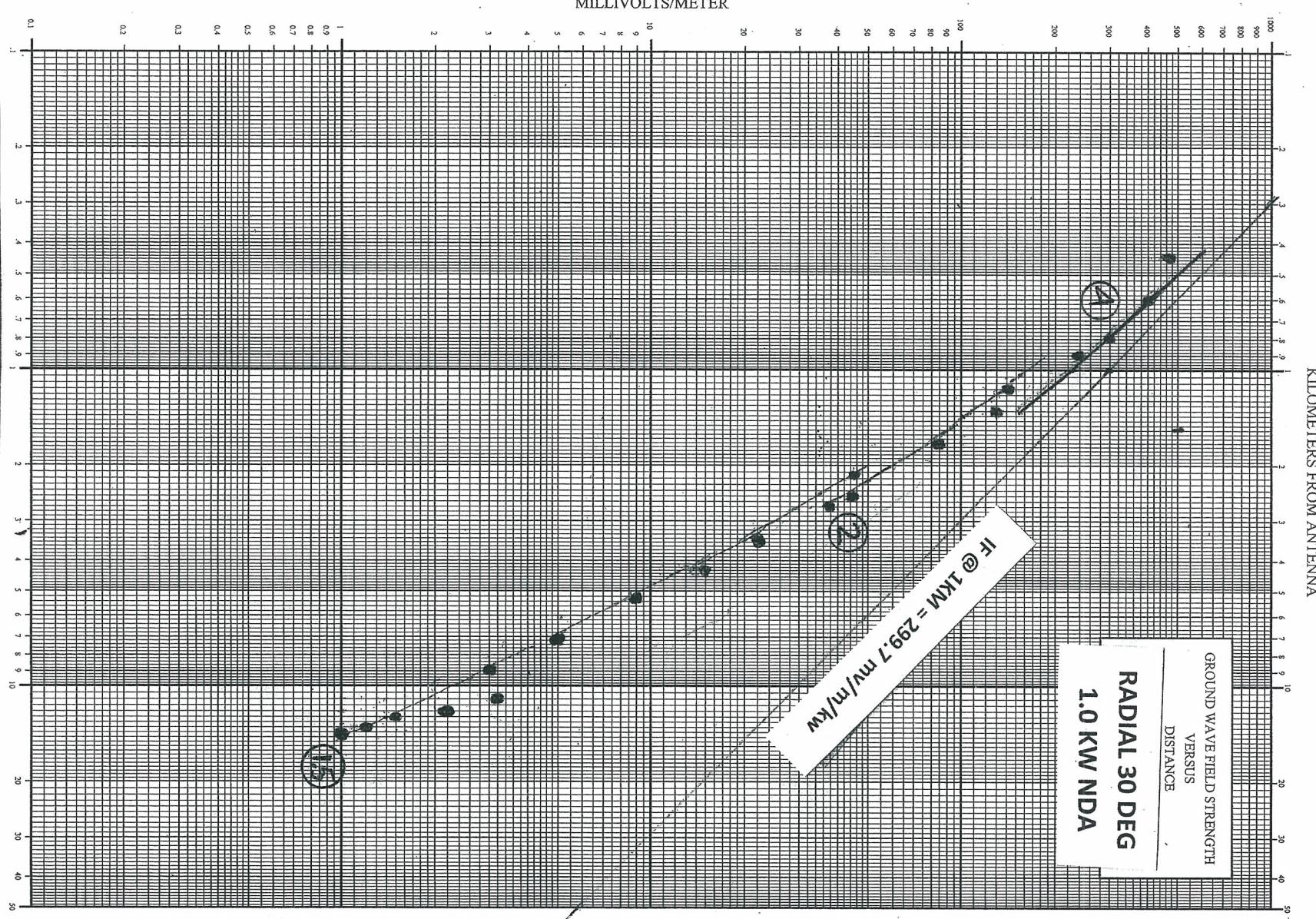
**DAYTIME PATTERN: 1.08 KW, PHASE: -93 DEG. / RATIO: 0.87**  
**NIGHTTIME NON-DIRECTIONAL ANTENNA: 1.0 KW**

RADIAL (DEG)	MEASURED NON-DA mv/m @ 1km	INVERSE FIELD NON-DA mv/m @ 1km	INVERSE FIELD DA mv/m @ 1 km	STANDARD mv/m @ 1
30	230	299.7	385	424
81	240	299.7	401	455
132	240	299.7	384	427
171	245	299.7	285	321
196	265	299.7	195	220
*261	240	299.7	33.2	58
326	180	299.7	195	211
351	130	299.7	293	314

\*RADIAL TO BE MONITORED



KILOMETERS FROM ANTENNA  
GRAPH 19-A

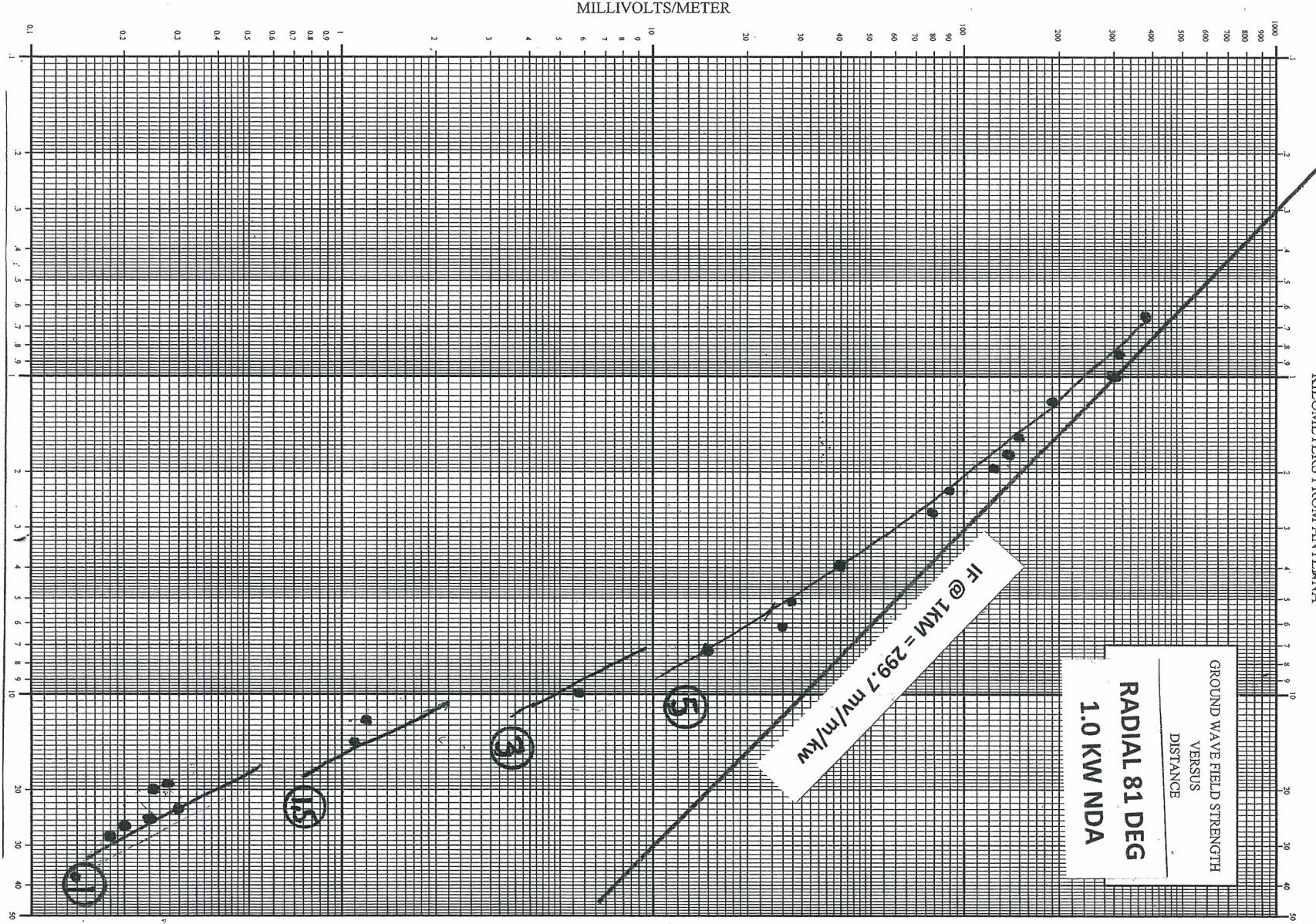


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 2 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF-1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

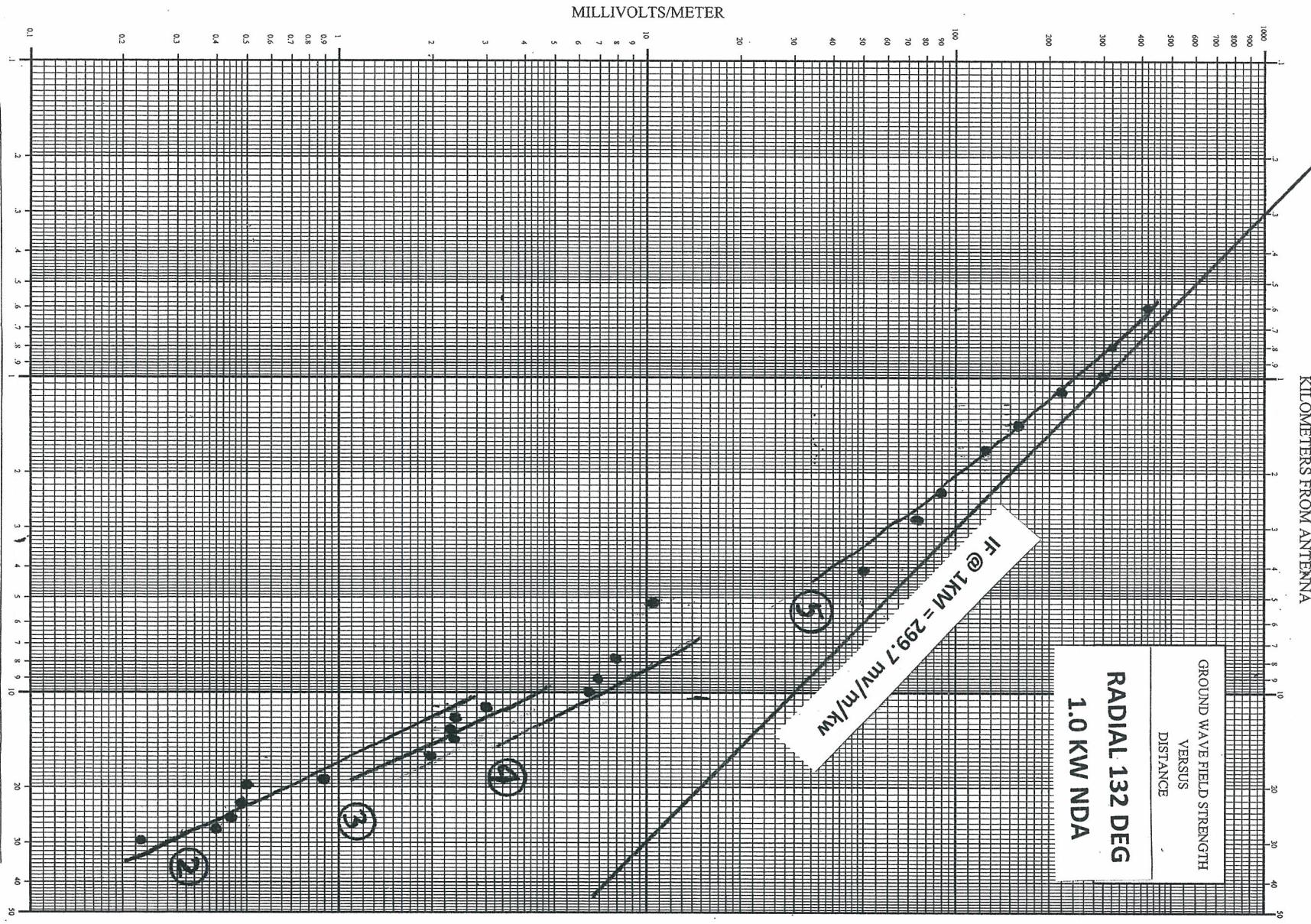


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 3 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF-1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Amendment)

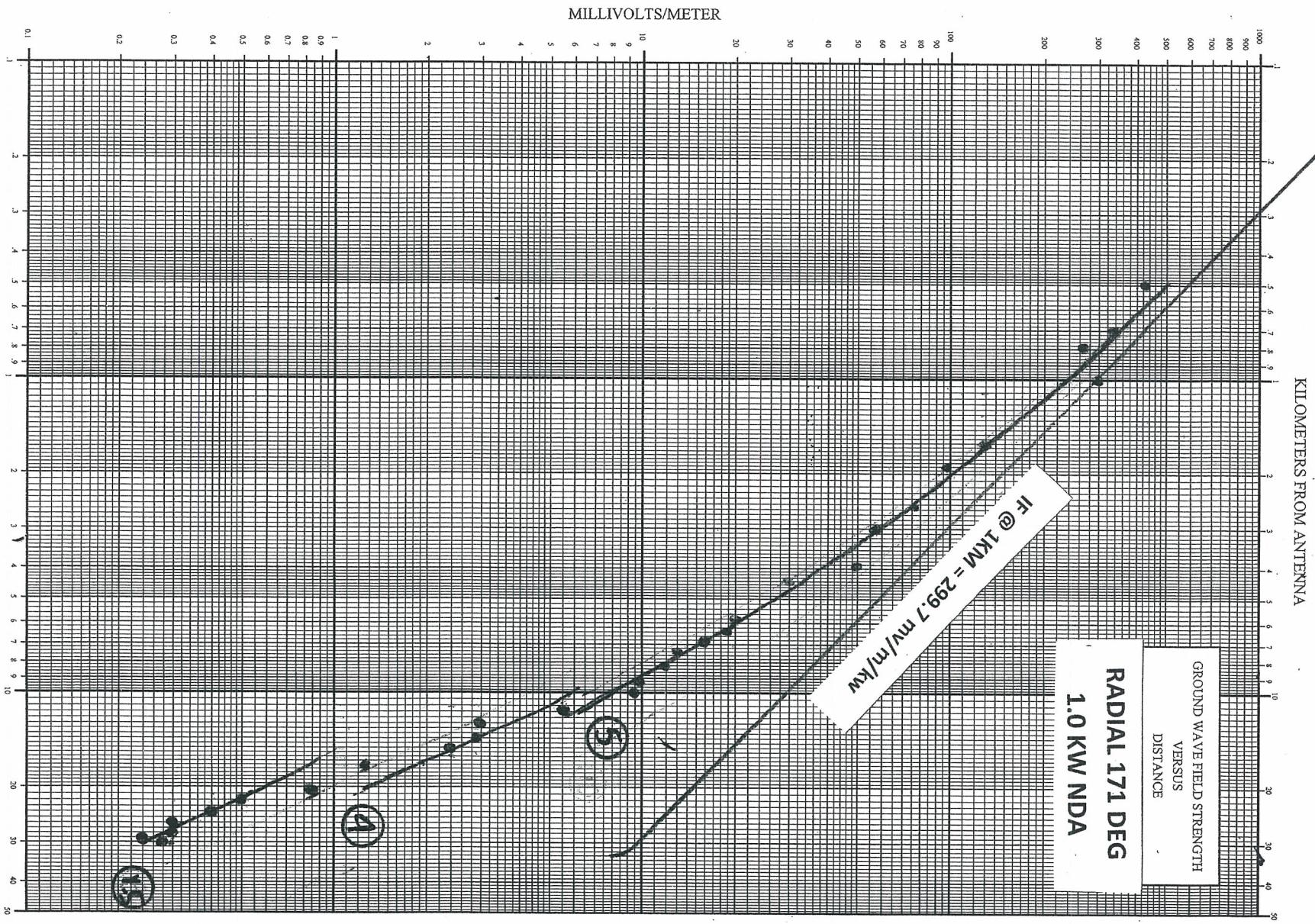


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 4 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

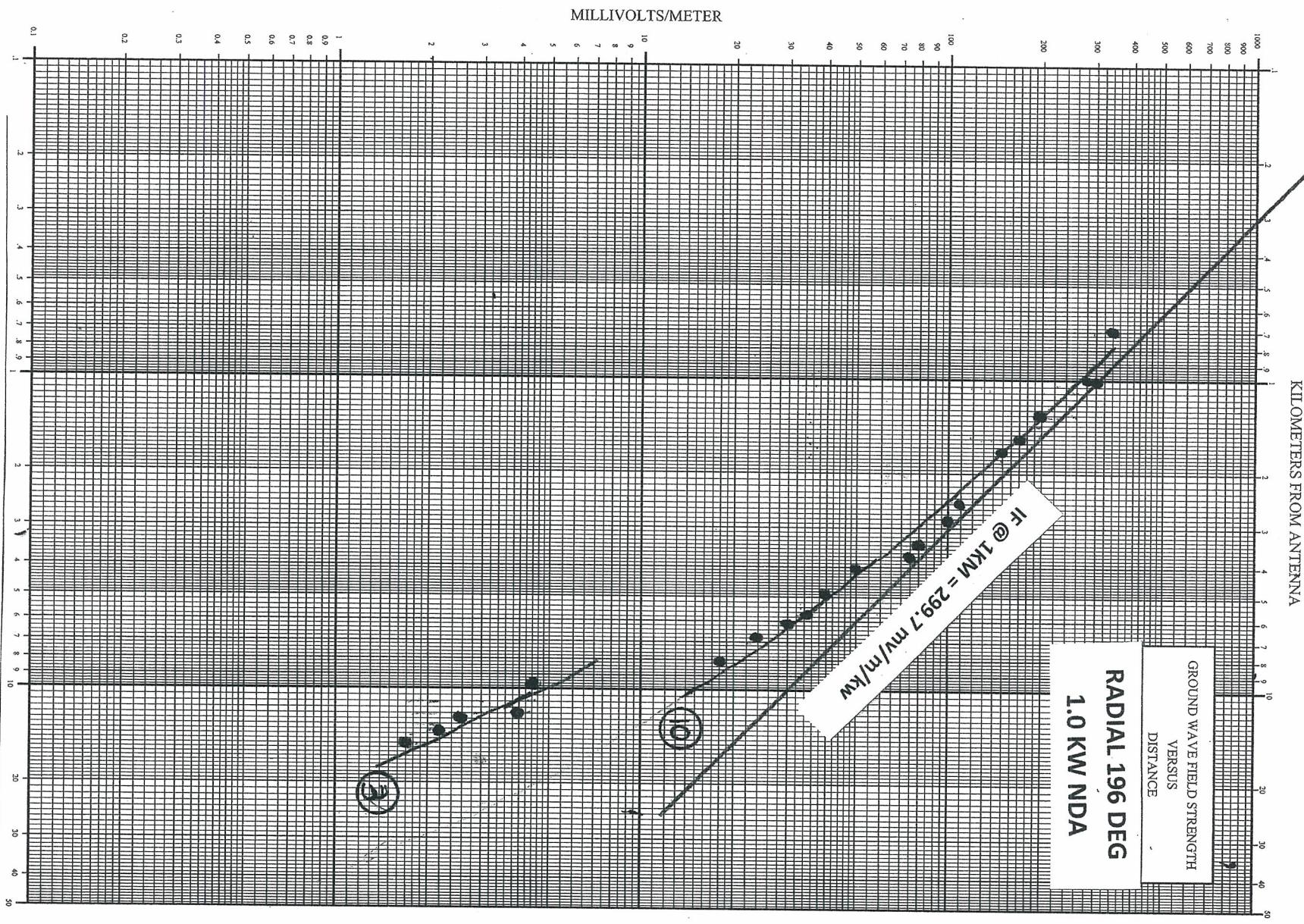


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 5 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

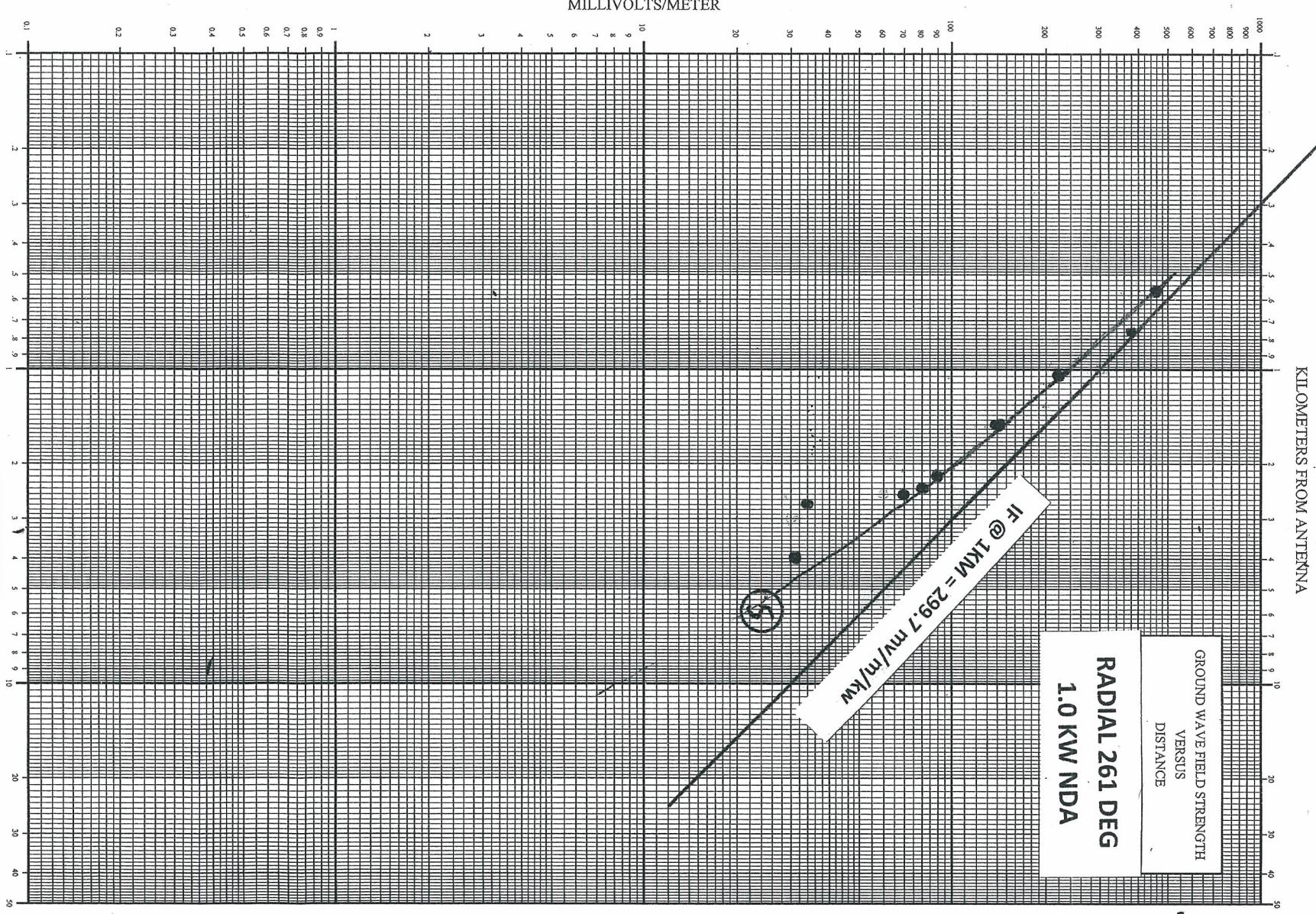


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 6 OF 17) RADIO STATION WVQZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

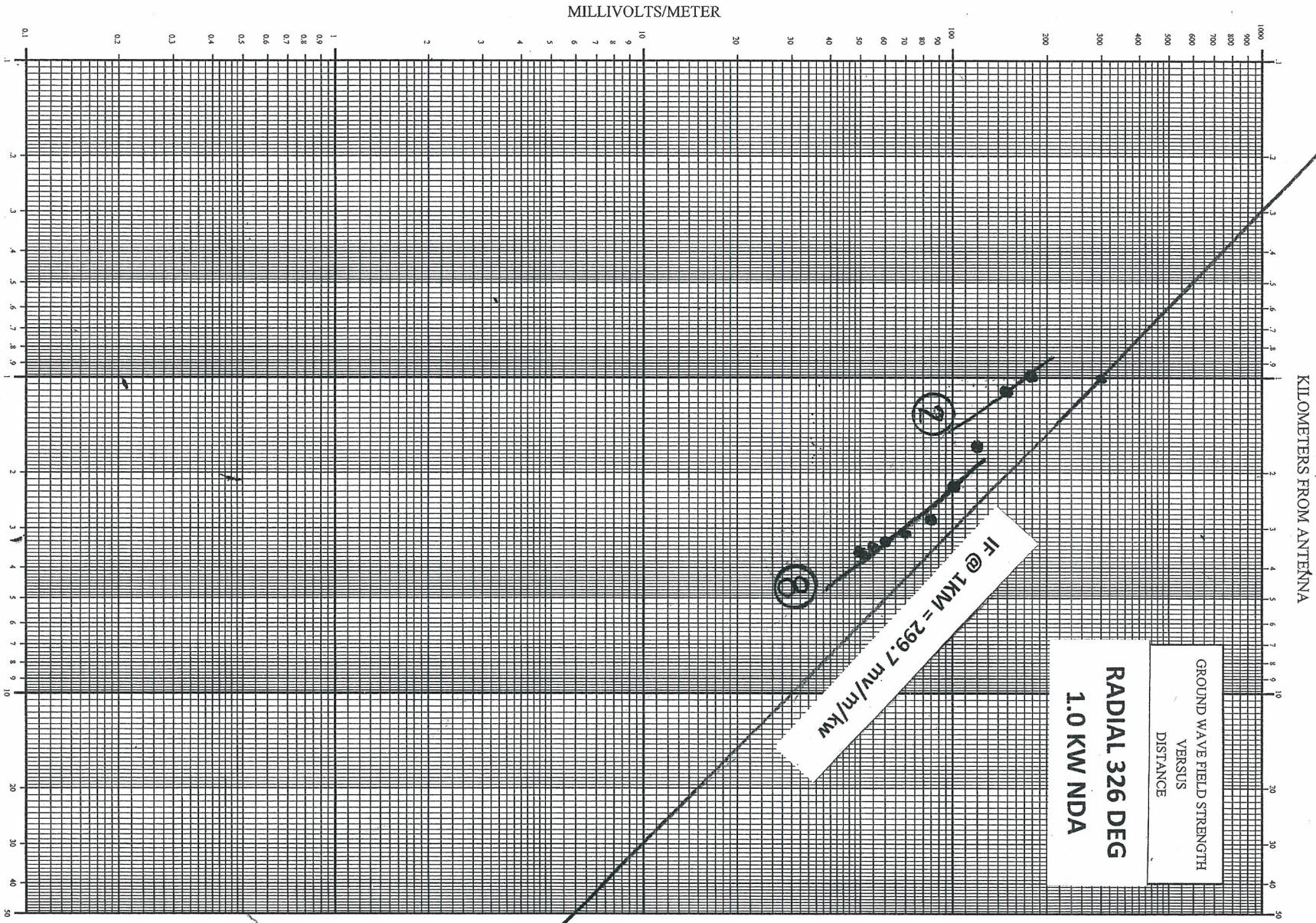


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 7 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ, 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Amendment)

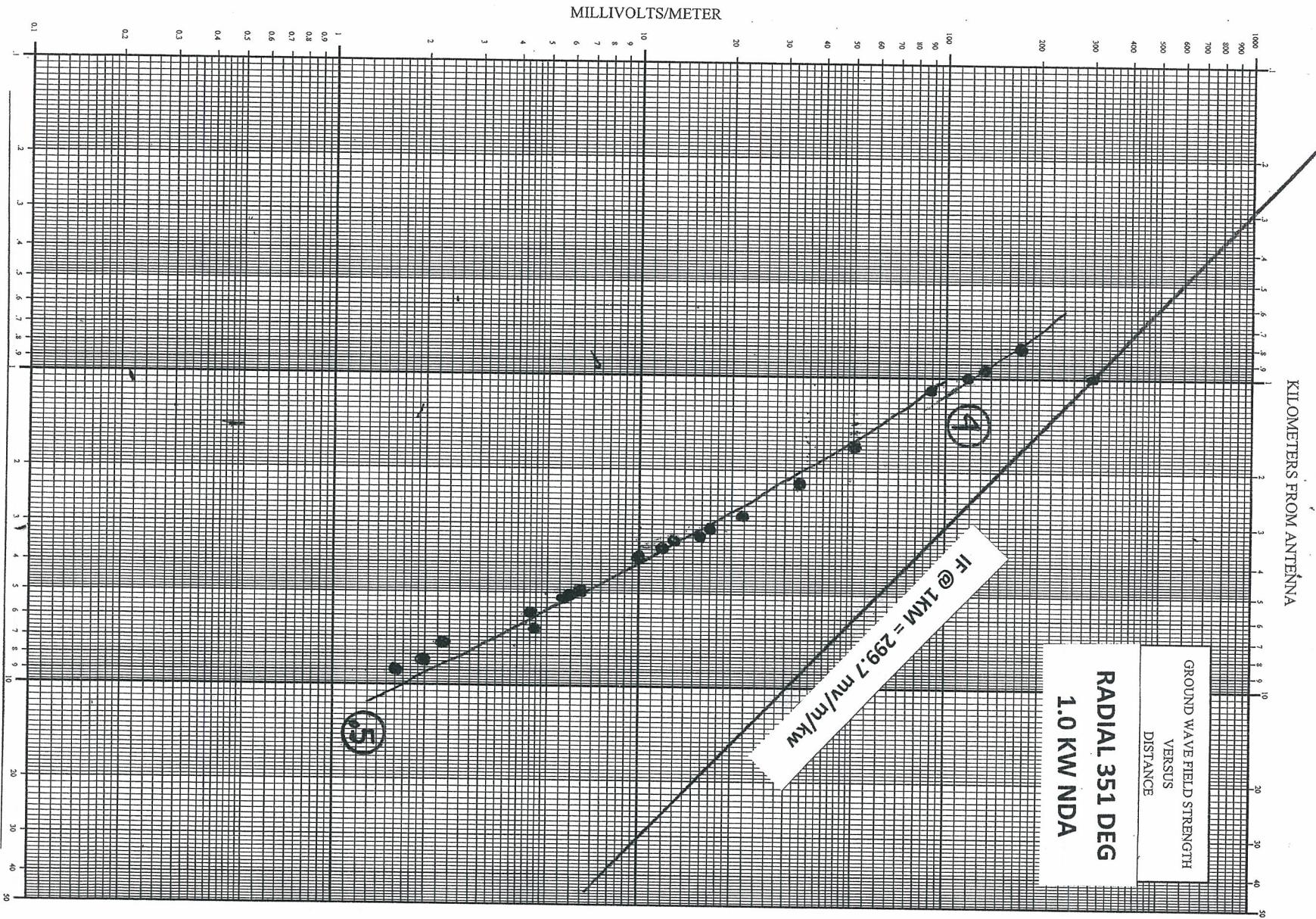


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 8 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammdement)

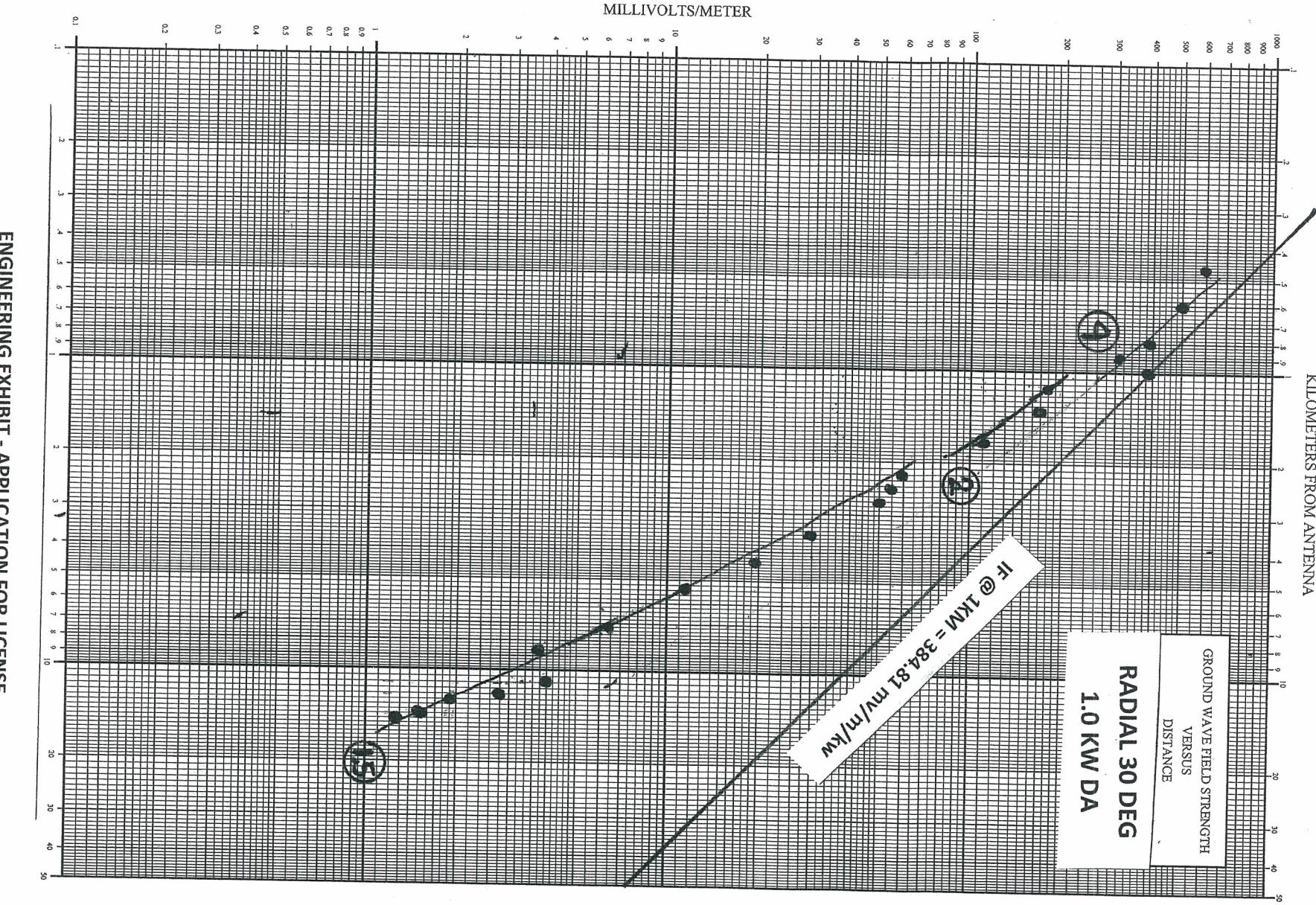


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 9 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ, 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Amendment)

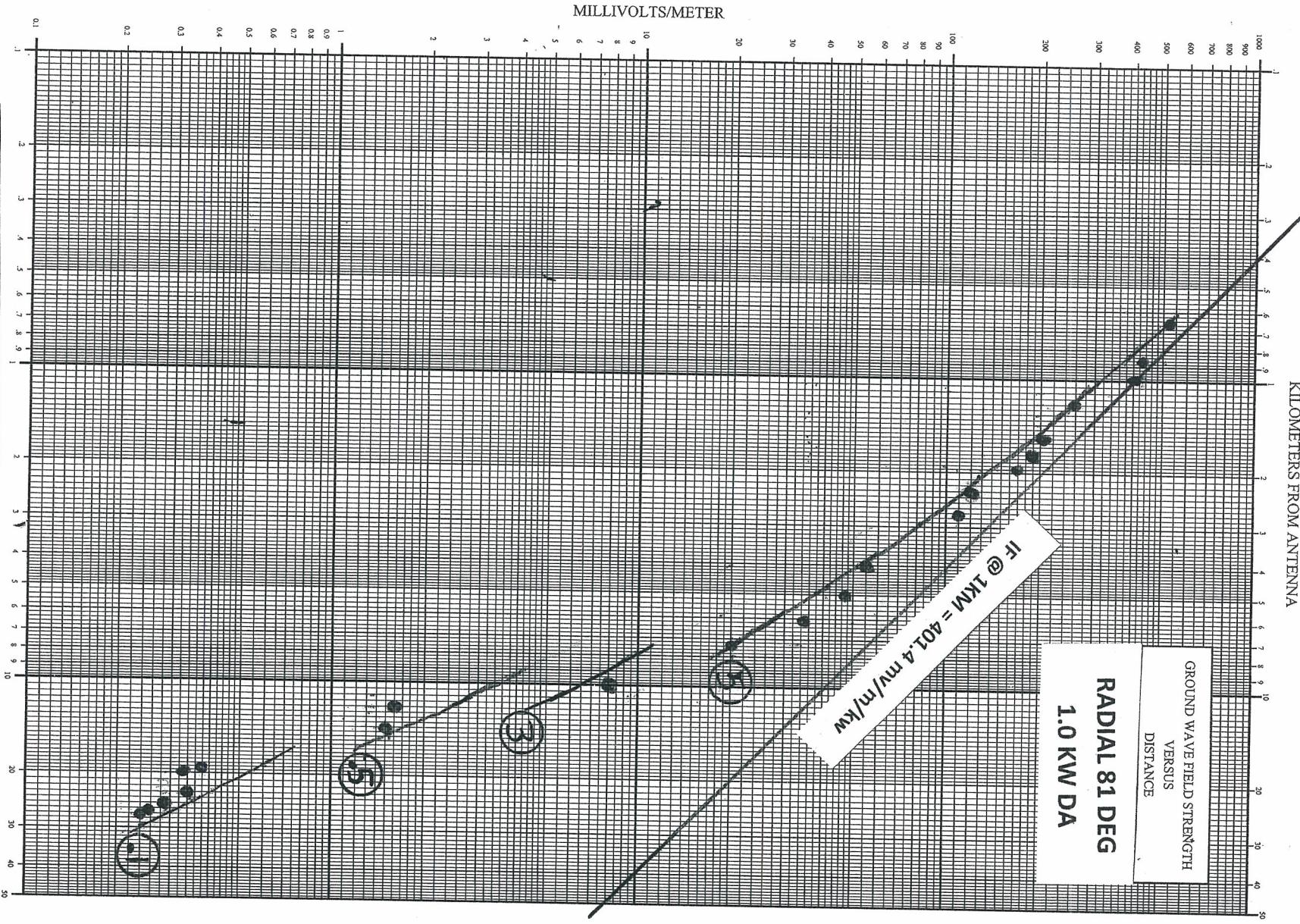


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 10 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

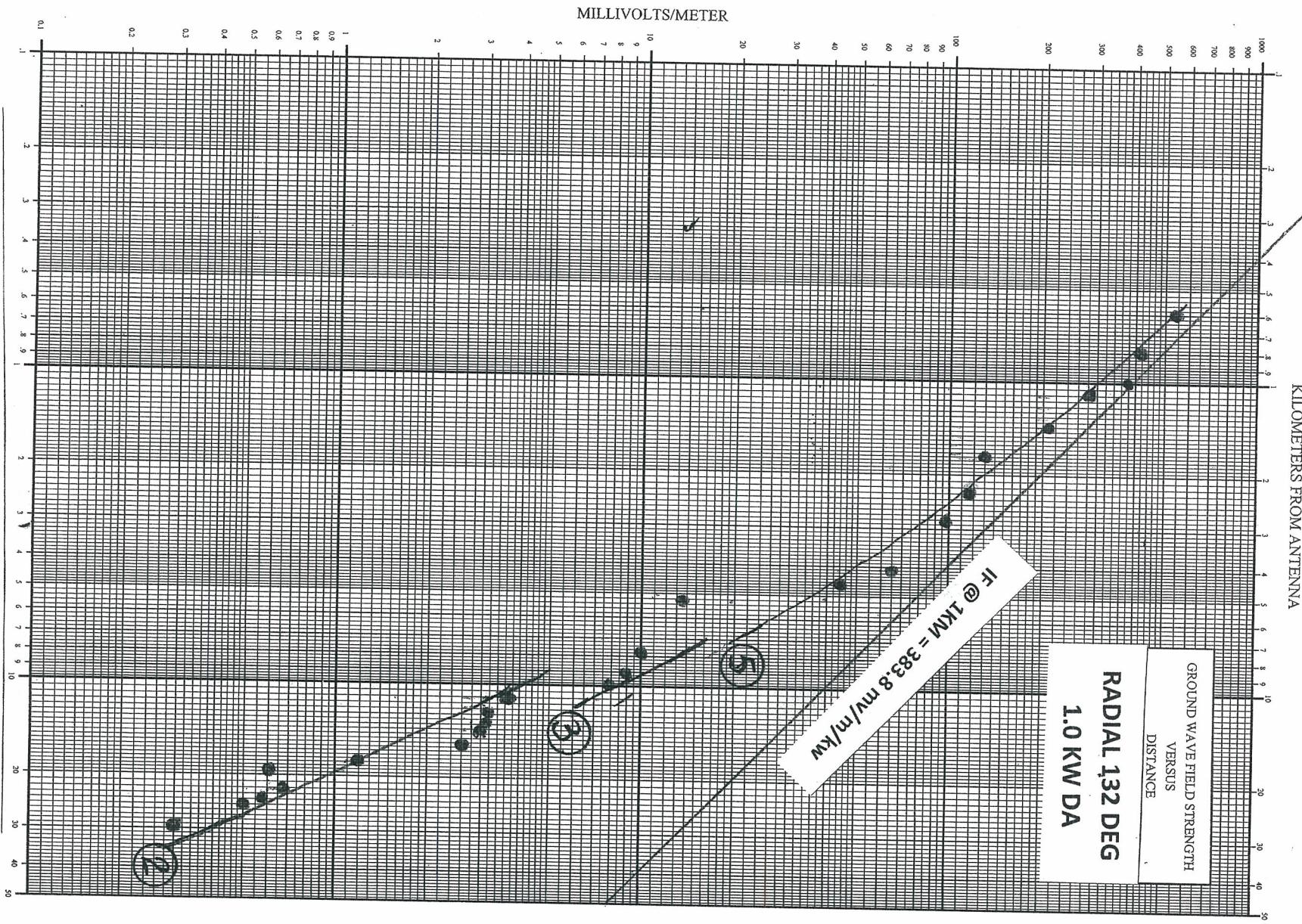


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 11 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)



ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 12 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF-1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

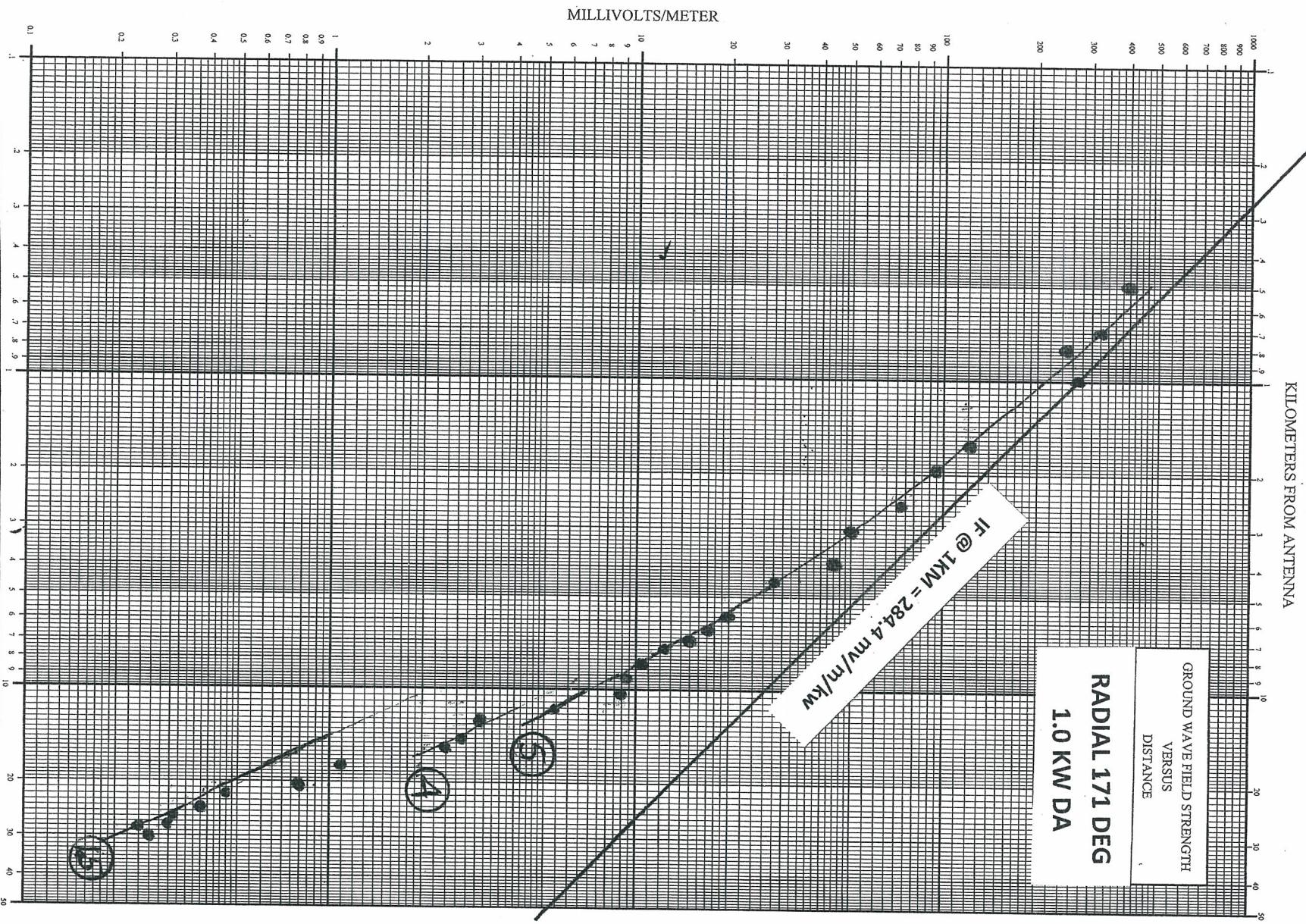


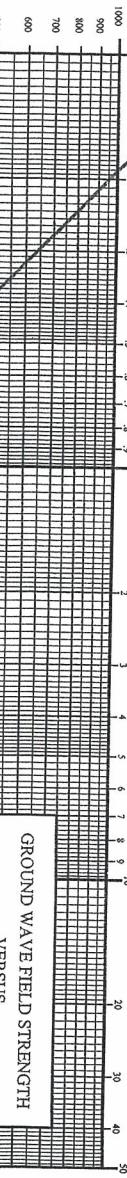
FIGURE 4 (SHEET 13 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ, 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Amendment)

ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

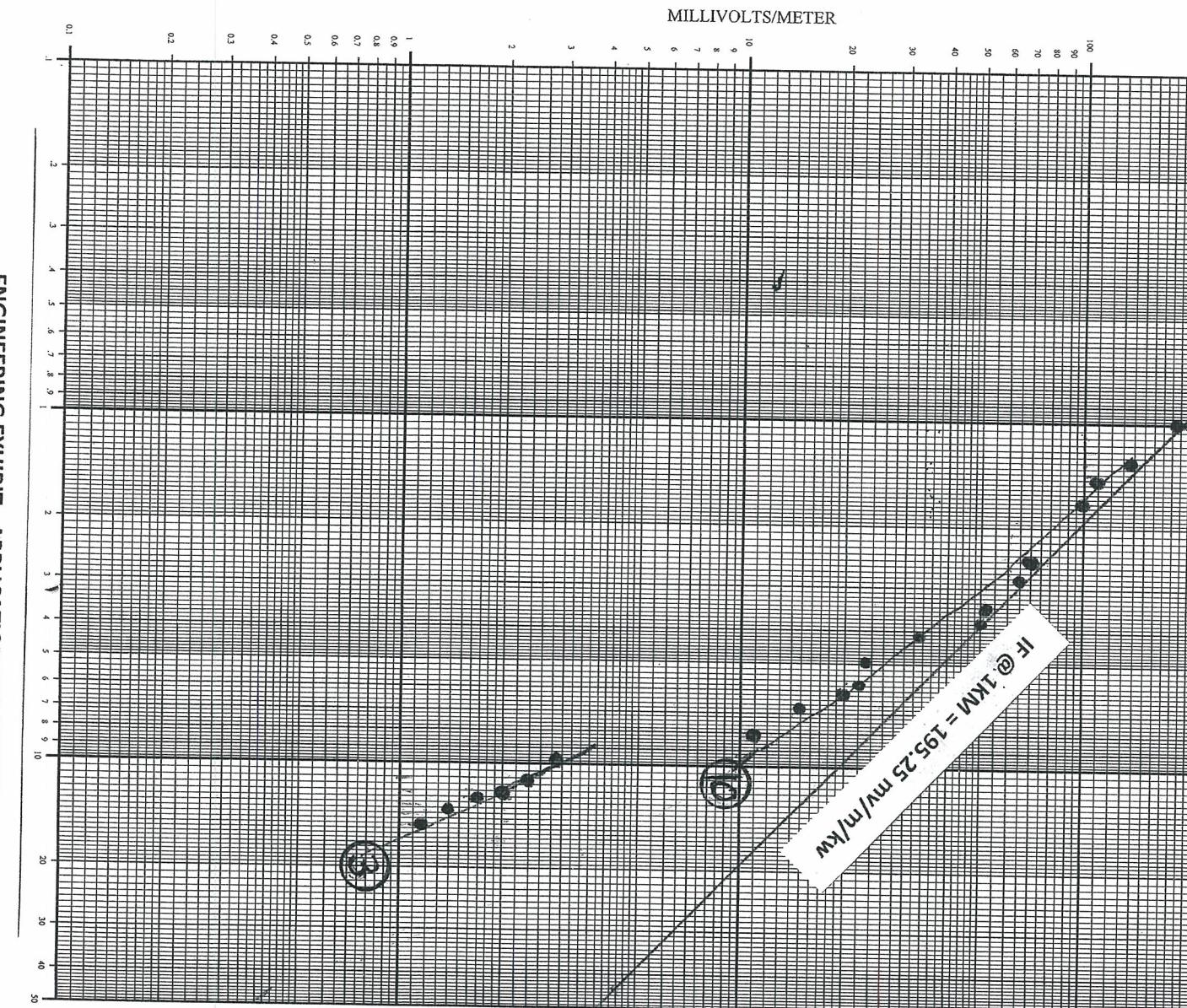
KILOMETERS FROM ANTENNA



GROUND WAVE FIELD STRENGTH  
VERSUS  
DISTANCE

RADIAL 196 DEG  
1.0 KW DA

$\text{@ } 1\text{KM} = 195.25 \text{ mV/m/Km}$

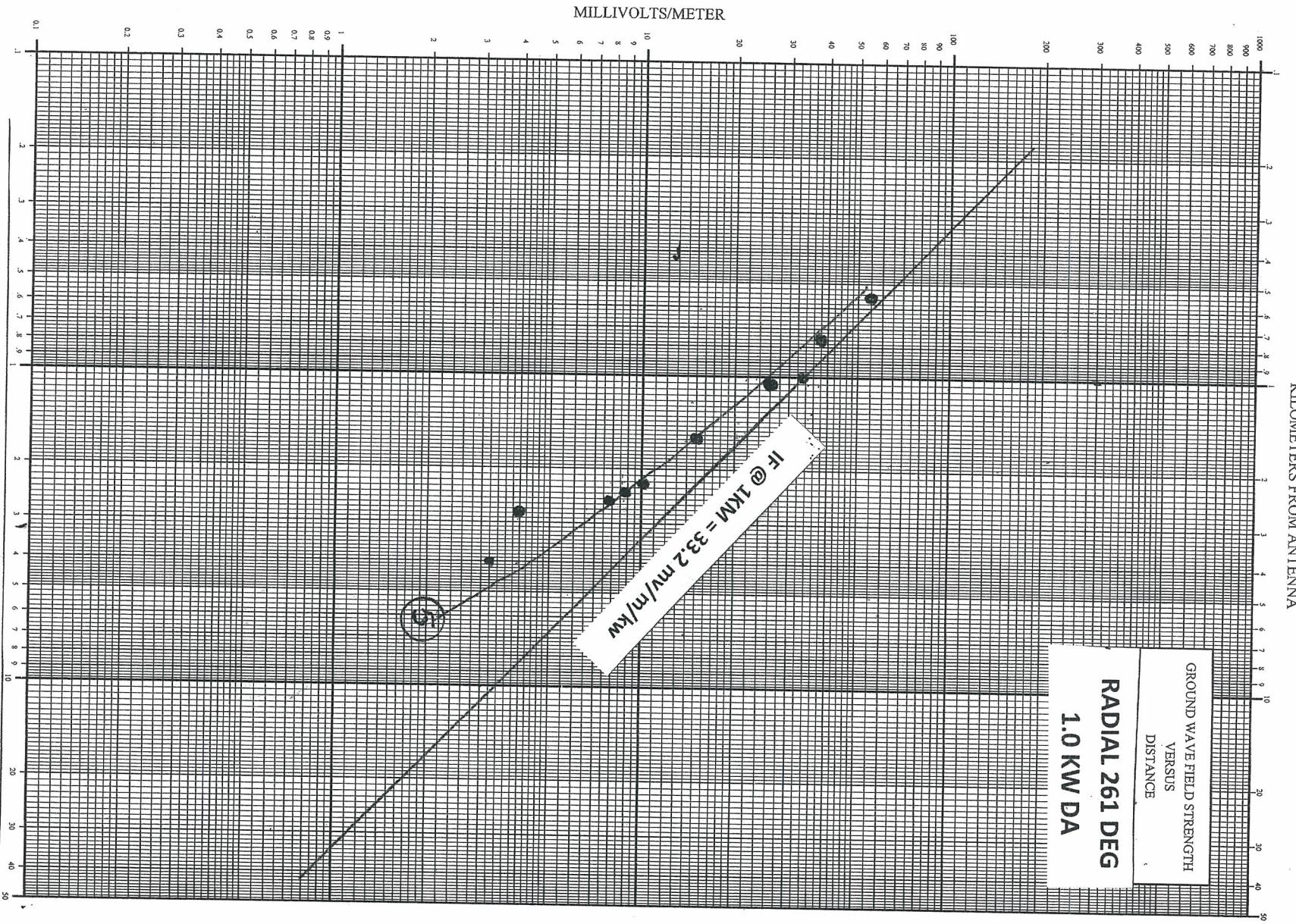


ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

FIGURE 4 (SHEET 14 OF 17) RADIO STATION WVQZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)



ENGINEERING EXHIBIT - APPLICATION FOR LICENSE  
**FIGURE 4 (SHEET 15 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.**  
 BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U  
 Oct. 5/2018 (Curative Amendment)

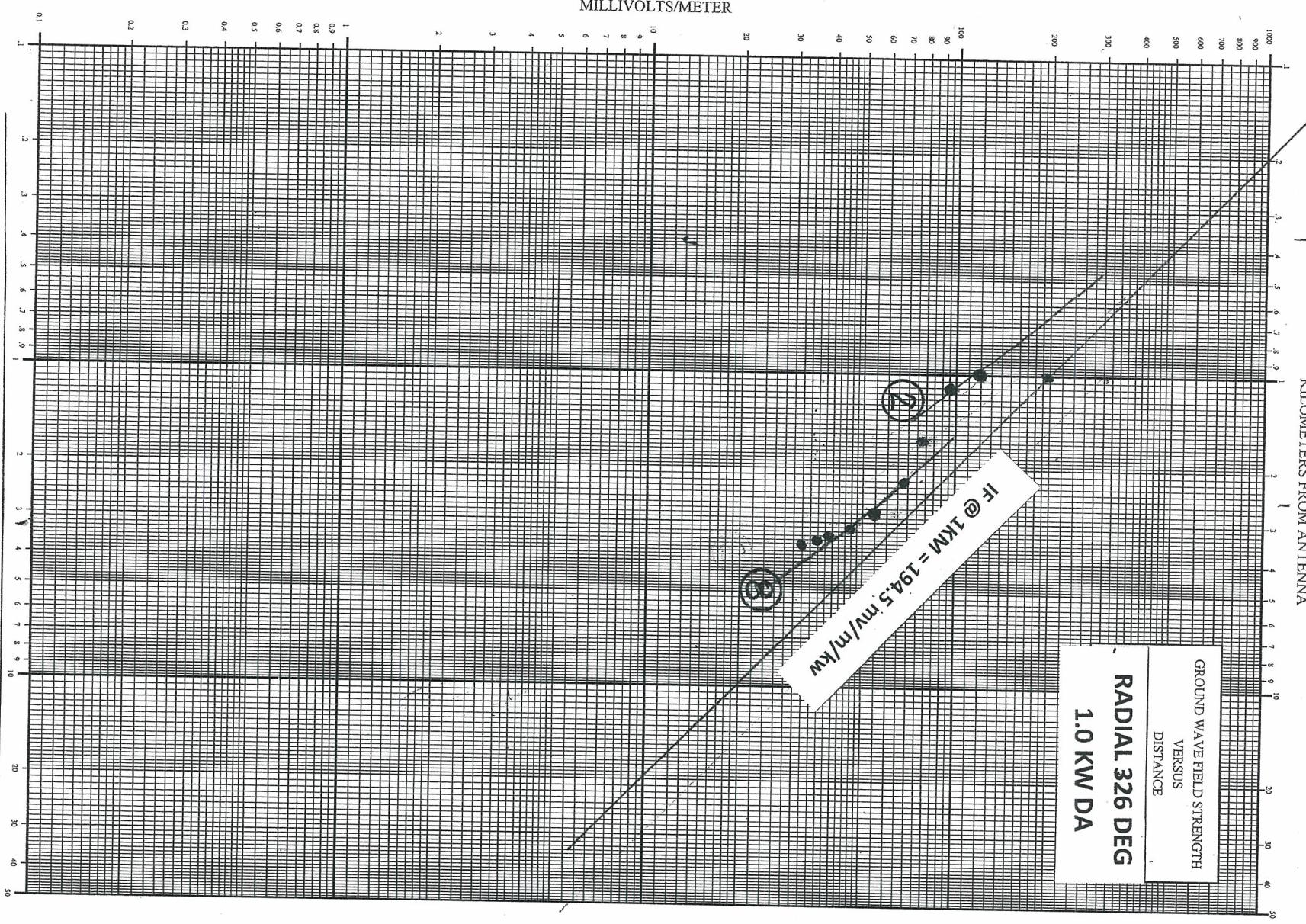


FIGURE 4 (SHEET 16 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.

BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

Oct. 5/2018 (Curative Ammendment)

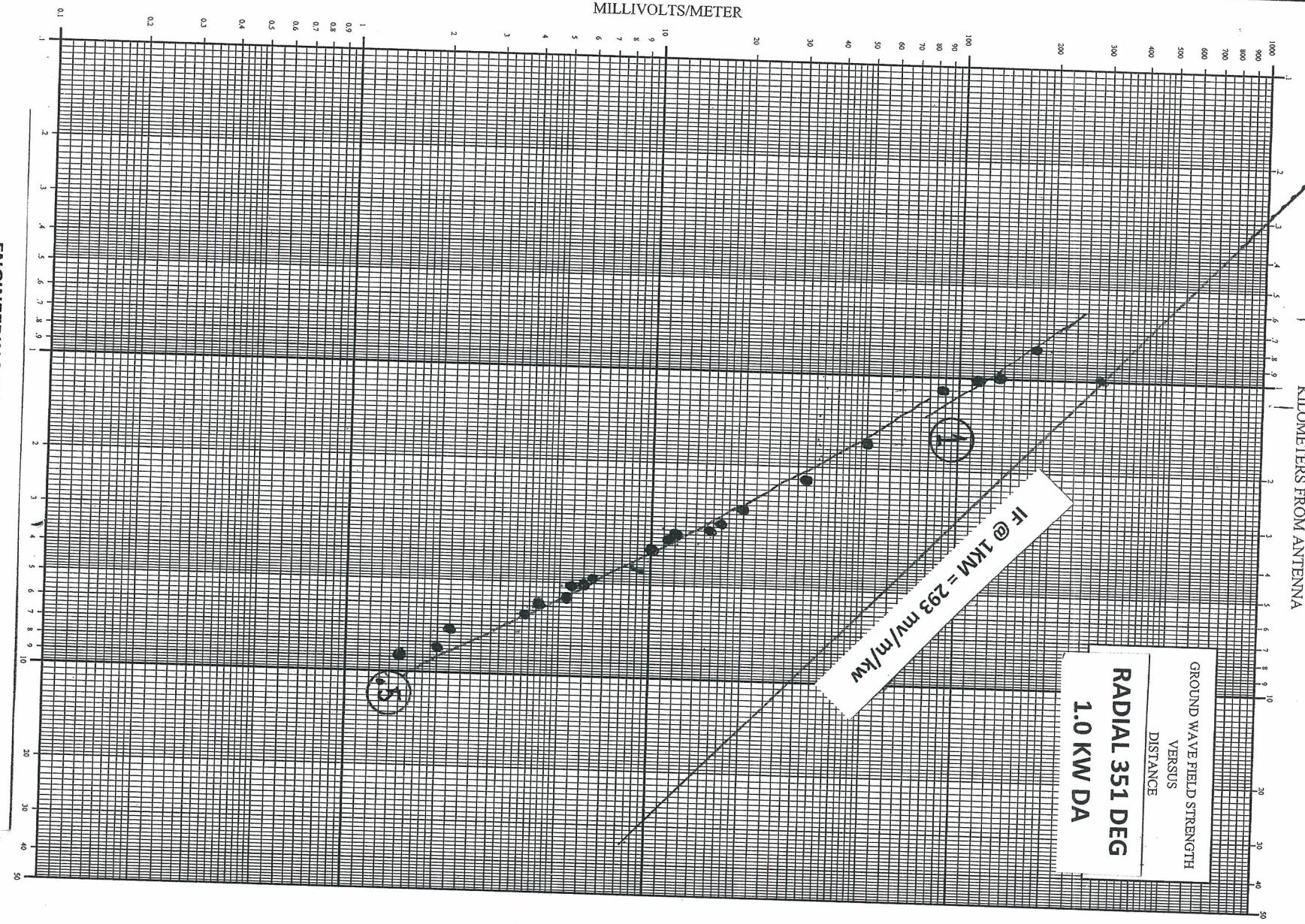


FIGURE 4 (SHEET 17 OF 17) RADIO STATION WVOZ-AM AGUADILLA, P.R.  
BP-20170327AAF - 1580 KHZ., 1.0 KW DA-D / 1.0 KW NDA-N, U

ENGINEERING EXHIBIT - APPLICATION FOR LICENSE

ENGINEERING EXHIBIT – APPLICATION FOR LICENSE  
RADIO STATION WVOZ-AM, AGUADILLA, P.R.  
1580 KHz., 1kw DA-D / 1kw NDA-N, U  
(Curative amendment) October 5, 2018

FIGURE 6 (SHEET 3 OF 5)  
BP-20170327AAF

**DAYTIME PATTERN DESCRIPTION OF  
MONITORING POINT**

**RADIAL: 261 DEGREES**

**DISTANCE: 2.46 kms. from center of radiation of array**

- a. Leave transmitter site. Take road PR-4443 towards WEST and proceed for 0.6 km.
- b. Turn right to access PR-111 and go WEST for 0.7 km.
- c. Make a left turn and follow road PR-115 towards Southwest and proceed for about 1.1 km and make a right turn on PR-439 (towards Bo. Tablonal, Aguada).
- d. Proceed on PR-439 for approximately 0.65 km and make a right turn on PR-4441.
- e. Proceed until km. 0.32 of PR-4441. The MONITOR POINT is crossing the road just in front of the common boundary of the houses at 1692 and 1694. (Photo of W. Blanco-Pi taking MP included in Fig. 6, Sheet 5)

**NORMAL READING: 7.8 mv/m**

**MAXIMUM READING: 15.3 mv/m**