ENGINEERING STATEMENT

IN SUPPORT OF

APPLICATION FOR MINOR MODIFICATION OF A CONSTRUCTION PERMIT

W33EP-D

KEY WEST, FL

Background

Scripps Broadcasting Holdings LLC (Scripps), is seeking, in its instant application, to change the transmit location and antenna for W33EP-D.

Proposed Parameters

Scripps is proposing the following parameters for the W33EP-D digital operation on Ch. 33:

Coordinates:	24° 34' 18.2" N (NAD83) 81° 44' 19.4" W
ERP:	1.0 kW
RCAMSL:	41.7m
RCAGL:	41.1m
Antenna:	Dielectric TLP-4J
Mask:	Simple

Antenna System and Tower

Scripps intends to install a new side-mounted, Dielectric TLP-4J directional antenna on the registered tower ASR#1016878. The new antenna will be horizontally polarized only.

Interference

An interference study was conducted of the proposed facility parameters using the FCC TVStudy software (Version 2.2.5) with the default parameters. The results of the study (copy attached hereto) show that potential interference from the proposed facility is not predicted to exceed 0.49% to any full-service DTV or Class A stations or 1.99% to any low power stations as required by the Commission's Rules.

Environmental/RFR

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA are beyond the scope of this report; since the structure is existing and is registered, such conditions should not be an issue requiring further consideration.

The location of the proposed facility is assumed to currently be "in compliance" with FCC guidelines for human exposure to RFR (as defined in OET-65). The worst-case ground level RFR contributed to the site by this proposal is calculated to be 0.004425 mW/cm^2 at 2m AGL. The calculated RFR is less than 5% of the maximum permissible exposure (MPE) for public areas (0.391333 mW/cm^2) at Ch. 33. Per Section 1.1307(b) of the FCC Rules, the proposed operation would be categorically excluded from taking corrective action in areas with levels above the MPE limit where the contribution to the RFR from the proposed facility is less than 5%.

Scripps agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access.

Certification

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information, and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

Benjamin Pidek, P.E.
May 14, 2023

Attached:
TVStudy Interference Check Report for Proposed W33EP-D Facility
Antenna Azimuth and Elevation Pattern Plots and Tabulations

TVStudy TV Interference Check Report for Proposed W33EP-D Facility on Ch. 33

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Study created: 2023.05.14 12:44:23

Study build station data: LMS TV 2023-05-09

    Proposal: W33EP-D D33 LD CP KEY WEST, FL
 File number: W33EP_C33_1kW_TLP4Jr160_ASR1016_051423
 Facility ID: 181691
Station data: User record
   Record ID: 348
     Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Stations potentially affected by proposal:

IX   Call      Chan       Svc Status  City, State              File Number             Distance
No   W25DQ-D   N25        TX  LIC     KEY WEST, FL             BLTTL20060425ABS          8.4 km
No   W29CW-D   N29z       TX  LIC     DUCK KEY, FL             BLTTL20050912ACC         83.1
No   DDWTVK-LP N31        TX  APP     KEY WEST, FL             BLTTL20090326ACP          1.0
Yes  DDWTVK-LP N31        TX  APP     KEY WEST, FL             BPTTL20130529ASA          0.3
No   WBFS-TV   D32        DT  LIC     MIAMI, FL                BLCDT20130909AAU        217.6
No   WXCW      D32        DT  LIC     NAPLES, FL               BLANK0000189580         247.8
No   WJAN-CD   D33        DC  LIC     MIAMI, FL                BLANK0000055082         167.2
No   WOFL      D33        DT  CP      ORLANDO, FL              BLANK0000212406         452.8
No   WOFL      D33        DT  LIC     ORLANDO, FL              BLANK0000145405         452.8
No   WWHB-CD   D33        DC  LIC     STUART, FL               BLANK0000184779         314.3
No   WGCT-LD   D33        LD  LIC     Tampa, FL                BLANK0000059159         367.9
No   WRXY-TV   D33        DT  LIC     TICE, FL                 BLANK0000112726         246.2
No   WFTX-TV   D34        DT  LIC     CAPE CORAL, FL           BLANK0000117402         247.1
No   WHDT      D34        DT  LIC     STUART, FL               BLANK0000085738         268.5

Non-directional AM stations within 0.8 km:
WKWF 1600 L ND2 D KEY WEST, FL BL20061228ABB
WKWF 1600 L ND2 N KEY WEST, FL BL20061228ABB

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D33
       Mask: Simple
   Latitude:  24 34 18.20 N (NAD83)
  Longitude:  81 44 19.40 W
Height AMSL: 41.7 m
       HAAT: 0.0 m
   Peak ERP: 1.00 kW
    Antenna: DIE TLP-4J 0.0 deg
Elev Pattrn: Generic

50.6 dBu contour:
Azimuth      ERP       HAAT   Distance
  0.0 deg  0.089 kW    41.7 m   11.0 km
 45.0      0.427       41.7     16.1
 90.0       1.00       41.7     20.3
135.0      0.410       41.7     15.9
180.0      0.361       41.7     15.3
225.0      0.964       41.7     20.1
270.0      0.534       41.6     17.2
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315.0 0.071 41.7 10.4

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 42 m

Distance to Canadian border: 1902.2 km

Distance to Mexican border: 1533.4 km

Conditions at FCC monitoring station: Vero Beach FL
Bearing: 17.9 degrees Distance: 354.8 km

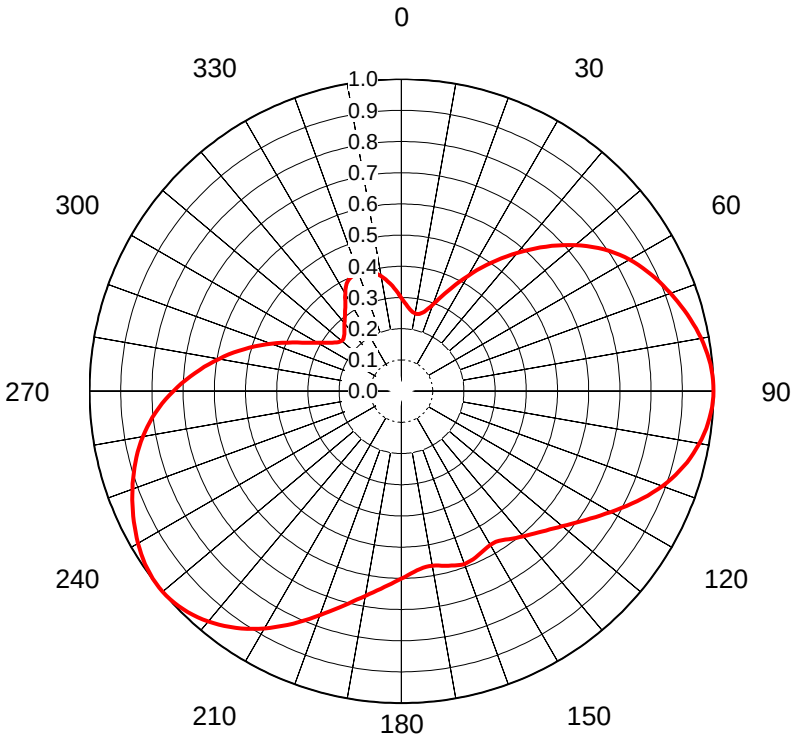
Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 314.0 degrees Distance: 2786.4 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

No IX check failures found.



AZIMUTH PATTERN
Horizontal Polarization

Proposal No.	
Date	**13-Oct-21**
Call Letters	**W33EP-D**
Channel	**33**
Frequency	**587 MHz**
Antenna Type	**TLP-4J**
Gain	**2.08 (3.19dB)**
	Calculated
Pattern Number	**TLP-J-33 Hpol**

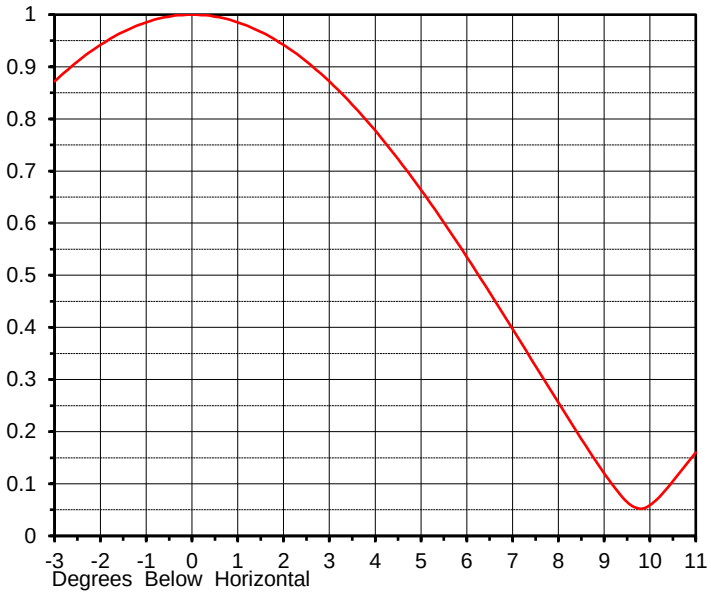
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.299	36	0.518	72	0.930	108	0.910	144	0.586	180	0.601	216	0.935	252	0.905	288	0.475	324	0.308
1	0.291	37	0.533	73	0.936	109	0.900	145	0.581	181	0.606	217	0.942	253	0.898	289	0.460	325	0.315
2	0.285	38	0.548	74	0.942	110	0.890	146	0.576	182	0.612	218	0.950	254	0.891	290	0.444	326	0.323
3	0.278	39	0.564	75	0.948	111	0.879	147	0.573	183	0.618	219	0.957	255	0.883	291	0.428	327	0.331
4	0.273	40	0.579	76	0.954	112	0.868	148	0.570	184	0.624	220	0.964	256	0.876	292	0.413	328	0.340
5	0.268	41	0.594	77	0.960	113	0.857	149	0.569	185	0.630	221	0.970	257	0.868	293	0.397	329	0.351
6	0.263	42	0.609	78	0.965	114	0.845	150	0.569	186	0.637	222	0.975	258	0.859	294	0.382	330	0.361
7	0.259	43	0.625	79	0.970	115	0.834	151	0.570	187	0.644	223	0.981	259	0.851	295	0.368	331	0.371
8	0.256	44	0.640	80	0.975	116	0.822	152	0.572	188	0.651	224	0.985	260	0.842	296	0.355	332	0.380
9	0.254	45	0.655	81	0.980	117	0.810	153	0.575	189	0.658	225	0.989	261	0.833	297	0.342	333	0.387
10	0.253	46	0.670	82	0.984	118	0.798	154	0.578	190	0.666	226	0.993	262	0.823	298	0.330	334	0.392
11	0.252	47	0.685	83	0.987	119	0.786	155	0.581	191	0.674	227	0.995	263	0.813	299	0.319	335	0.396
12	0.253	48	0.699	84	0.991	120	0.775	156	0.584	192	0.683	228	0.998	264	0.803	300	0.309	336	0.399
13	0.254	49	0.713	85	0.994	121	0.763	157	0.586	193	0.692	229	0.999	265	0.792	301	0.300	337	0.401
14	0.257	50	0.728	86	0.996	122	0.752	158	0.588	194	0.701	230	1.000	266	0.780	302	0.292	338	0.402
15	0.260	51	0.741	87	0.998	123	0.741	159	0.589	195	0.711	231	1.000	267	0.769	303	0.284	339	0.402
16	0.265	52	0.755	88	0.999	124	0.731	160	0.591	196	0.721	232	0.999	268	0.756	304	0.277	340	0.402
17	0.271	53	0.767	89	1.000	125	0.720	161	0.588	197	0.732	233	0.998	269	0.744	305	0.271	341	0.401
18	0.279	54	0.780	90	1.000	126	0.710	162	0.586	198	0.742	234	0.996	270	0.731	306	0.265	342	0.401
19	0.287	55	0.792	91	0.999	127	0.700	163	0.584	199	0.753	235	0.994	271	0.718	307	0.260	343	0.399
20	0.296	56	0.803	92	0.998	128	0.691	164	0.582	200	0.764	236	0.991	272	0.705	308	0.256	344	0.397
21	0.307	57	0.814	93	0.997	129	0.682	165	0.580	201	0.776	237	0.988	273	0.692	309	0.252	345	0.395
22	0.318	58	0.825	94	0.994	130	0.673	166	0.577	202	0.787	238	0.984	274	0.678	310	0.250	346	0.392
23	0.330	59	0.834	95	0.991	131	0.665	167	0.574	203	0.799	239	0.980	275	0.664	311	0.250	347	0.389
24	0.342	60	0.844	96	0.988	132	0.657	168	0.572	204	0.810	240	0.975	276	0.650	312	0.251	348	0.385
25	0.355	61	0.852	97	0.984	133	0.650	169	0.570	205	0.822	241	0.970	277	0.637	313	0.252	349	0.380
26	0.369	62	0.861	98	0.979	134	0.643	170	0.568	206	0.834	242	0.965	278	0.623	314	0.255	350	0.374
27	0.383	63	0.869	99	0.974	135	0.637	171	0.568	207	0.845	243	0.960	279	0.608	315	0.259	351	0.368
28	0.397	64	0.876	100	0.969	136	0.630	172	0.569	208	0.856	244	0.954	280	0.594	316	0.263	352	0.361
29	0.412	65	0.883	101	0.963	137	0.624	173	0.571	209	0.867	245	0.948	281	0.580	317	0.268	353	0.354
30	0.427	66	0.891	102	0.957	138	0.619	174	0.573	210	0.878	246	0.942	282	0.566	318	0.273	354	0.346
31	0.442	67	0.897	103	0.950	139	0.613	175	0.577	211	0.888	247	0.936	283	0.551	319	0.279	355	0.338
32	0.457	68	0.904	104	0.943	140	0.608	176	0.581	212	0.898	248	0.930	284	0.536	320	0.284	356	0.330
33	0.472	69	0.911	105	0.935	141	0.602	177	0.585	213	0.908	249	0.924	285	0.521	321	0.290	357	0.322
34	0.487	70	0.917	106	0.927	142	0.597	178	0.590	214	0.917	250	0.918	286	0.506	322	0.295	358	0.314
35	0.502	71	0.923	107	0.919	143	0.592	179	0.595	215	0.926	251	0.911	287	0.491	323	0.301	359	0.306

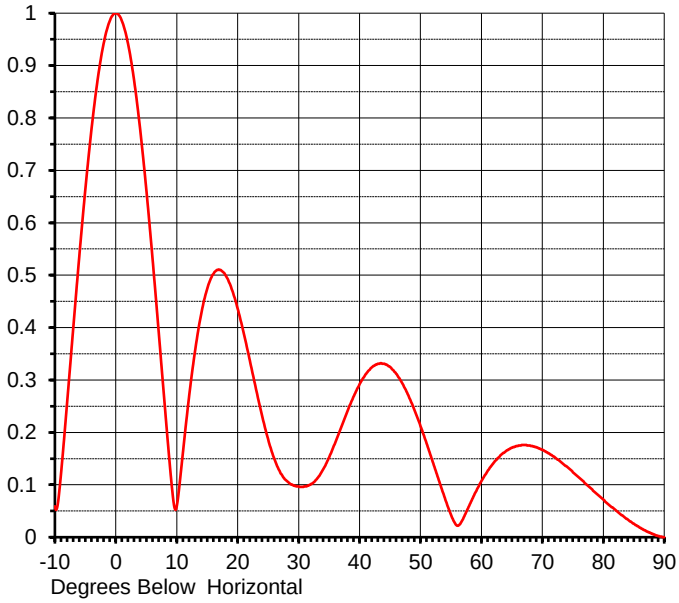
ELEVATION PATTERN

Proposal No.	
Date	**13-Oct-21**
Call Letters	**W33EP-D**
Channel	**33**
Frequency	**587 MHz**
Antenna Type	**TLP-4J**

RMS Directivity at Main Lobe	**4.1 (6.13 dB)**	Beam Tilt	**0.00 deg**
RMS Directivity at Horizontal	**4.1 (6.13 dB)**	Pattern Number	**04L041000-33**

Calculated





Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.059	10.0	0.059	30.0	0.097	50.0	0.212	70.0	0.167
-9.0	0.120	11.0	0.160	31.0	0.097	51.0	0.179	71.0	0.160
-8.0	0.256	12.0	0.266	32.0	0.101	52.0	0.144	72.0	0.153
-7.0	0.397	13.0	0.355	33.0	0.111	53.0	0.109	73.0	0.144
-6.0	0.535	14.0	0.425	34.0	0.129	54.0	0.075	74.0	0.135
-5.0	0.664	15.0	0.474	35.0	0.152	55.0	0.043	75.0	0.124
-4.0	0.778	16.0	0.502	36.0	0.180	56.0	0.022	76.0	0.114
-3.0	0.872	17.0	0.510	37.0	0.210	57.0	0.035	77.0	0.103
-2.0	0.942	18.0	0.500	38.0	0.240	58.0	0.060	78.0	0.093
-1.0	0.985	19.0	0.474	39.0	0.268	59.0	0.085	79.0	0.082
0.0	1.000	20.0	0.436	40.0	0.292	60.0	0.107	80.0	0.072
1.0	0.985	21.0	0.389	41.0	0.311	61.0	0.126	81.0	0.061
2.0	0.942	22.0	0.337	42.0	0.324	62.0	0.142	82.0	0.052
3.0	0.872	23.0	0.283	43.0	0.331	63.0	0.154	83.0	0.042
4.0	0.778	24.0	0.232	44.0	0.331	64.0	0.164	84.0	0.034
5.0	0.664	25.0	0.187	45.0	0.325	65.0	0.171	85.0	0.026
6.0	0.535	26.0	0.150	46.0	0.312	66.0	0.174	86.0	0.018
7.0	0.397	27.0	0.123	47.0	0.294	67.0	0.176	87.0	0.012
8.0	0.256	28.0	0.108	48.0	0.271	68.0	0.175	88.0	0.007
9.0	0.120	29.0	0.100	49.0	0.243	69.0	0.172	89.0	0.002
								90.0	0.000