

Technical Certifications

This technical certifications exhibit for the minor modification of K214DT demonstrates compliance with all engineering standards and requirements specified in the applicable FCC rules and regulations. This application proposes a change in channel and ERP as is indicated below:

	Licensed	Minor Mod
Channel / Class	214D	213D
ASRN	N/A	N/A
Geographical Coordinates	35 14 25.0 111 35 51.6	35 14 25.0 111 35 51.6
Tower AGL	35.0 m	35.0 m
Site AMSL	2821.0 m	2821.0 m
COR AGL	33.0 m	33.0 m
COR AMSL	2854.0 m	2854.0 m
HAAT	627.0 m	606.2 m
ERP	0.190 kW (V, DA)	0.100 kW (V, DA)

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Tabulation of HAAT / ERP / distance to 60 dBu contour

CH 213 35 14 25.0 / 111 35 51.6 0.100 kW ERP (V, DA) 2854.0 m COR AMSL 606.2 m HAAT

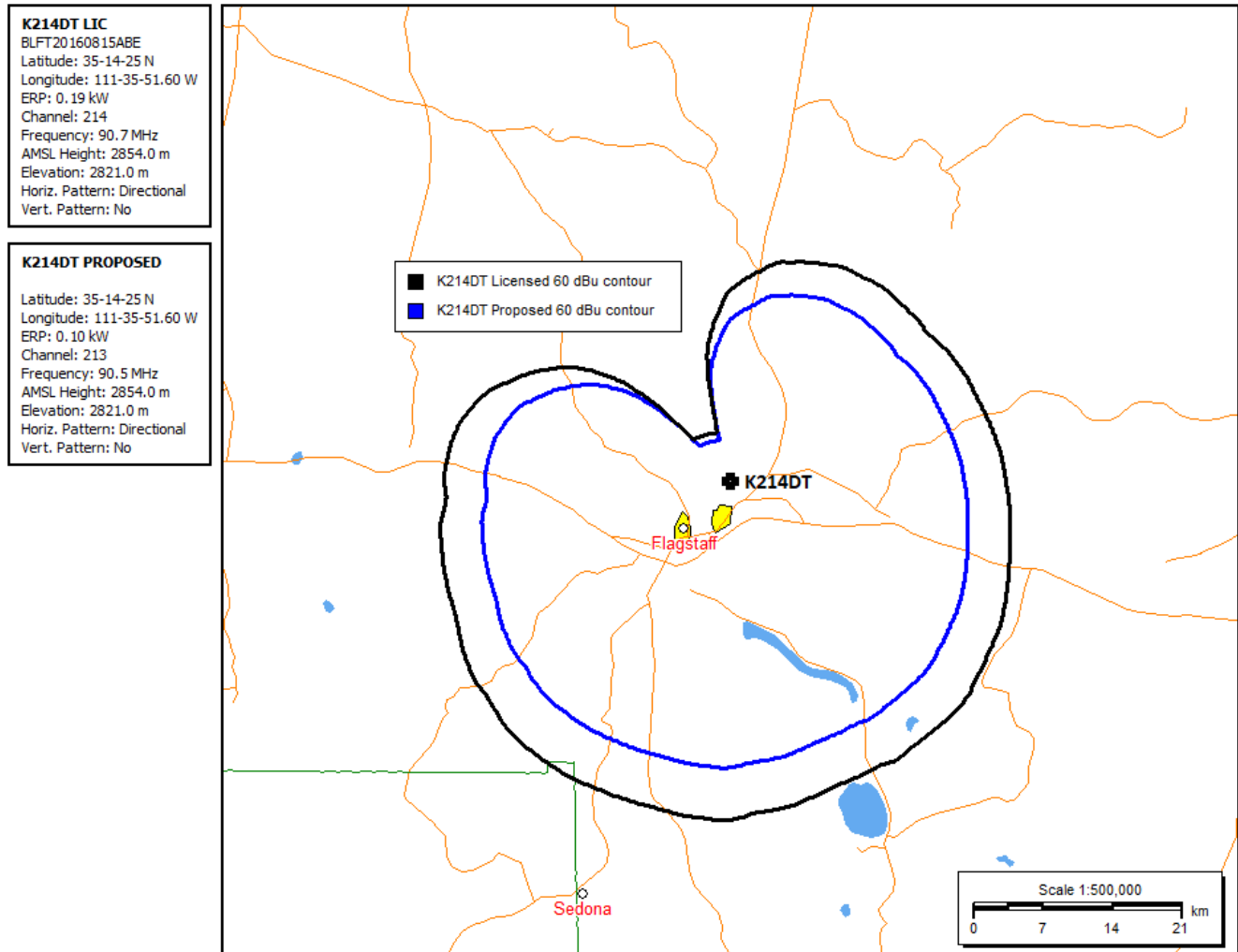
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	2411.7	442.3	0.0320	-14.94	0.566	16.28
010	2284.6	569.4	0.0301	-15.21	0.549	18.51
020	2201.0	653.0	0.0292	-15.35	0.540	19.83
030	2139.5	714.5	0.0286	-15.43	0.535	20.62
040	2114.4	739.6	0.0285	-15.45	0.534	20.93
050	2113.8	740.2	0.0286	-15.43	0.535	20.96
060	2078.8	775.2	0.0292	-15.35	0.540	21.50
070	2060.5	793.5	0.0301	-15.21	0.549	21.92
080	2034.7	819.3	0.0320	-14.94	0.566	22.58
090	2027.7	826.3	0.0350	-14.55	0.592	23.21
100	2032.1	821.9	0.0397	-14.01	0.630	23.93
110	2030.5	823.5	0.0461	-13.36	0.679	24.89
120	2031.9	822.1	0.0540	-12.67	0.735	25.89
130	2045.6	808.4	0.0627	-12.03	0.792	26.67
140	2072.3	781.7	0.0714	-11.46	0.845	27.10
150	2100.5	753.5	0.0796	-10.99	0.892	27.33
160	2133.0	721.0	0.0863	-10.64	0.929	27.26
170	2119.8	734.2	0.0914	-10.39	0.956	27.90
180	2105.0	749.0	0.0951	-10.22	0.975	28.46
190	2118.5	735.5	0.0974	-10.11	0.987	28.36
200	2127.9	726.1	0.0990	-10.04	0.995	28.29
210	2126.7	727.3	0.0998	-10.01	0.999	28.37
220	2131.8	722.2	0.1000	-10.00	1.000	28.28
230	2164.9	689.1	0.0998	-10.01	0.999	27.60
240	2202.6	651.4	0.0990	-10.04	0.995	26.79
250	2240.2	613.8	0.0974	-10.11	0.987	25.91
260	2260.7	593.3	0.0951	-10.22	0.975	25.33
270	2281.6	572.4	0.0914	-10.39	0.956	24.62
280	2289.0	565.0	0.0863	-10.64	0.929	24.11
290	2339.7	514.3	0.0796	-10.99	0.892	22.37
300	2452.9	401.1	0.0714	-11.46	0.845	19.05
310	2606.2	247.8	0.0627	-12.03	0.792	14.38
320	2867.3	-13.3	0.0540	-12.67	0.735	4.81
330	3015.1	-161.1	0.0461	-13.36	0.679	4.61
340	2919.3	-65.3	0.0397	-14.01	0.630	4.43
350	2638.3	215.7	0.0350	-14.55	0.592	11.71

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(yellow highlighted values establish average HAAT)

60 dBu contour coverage map

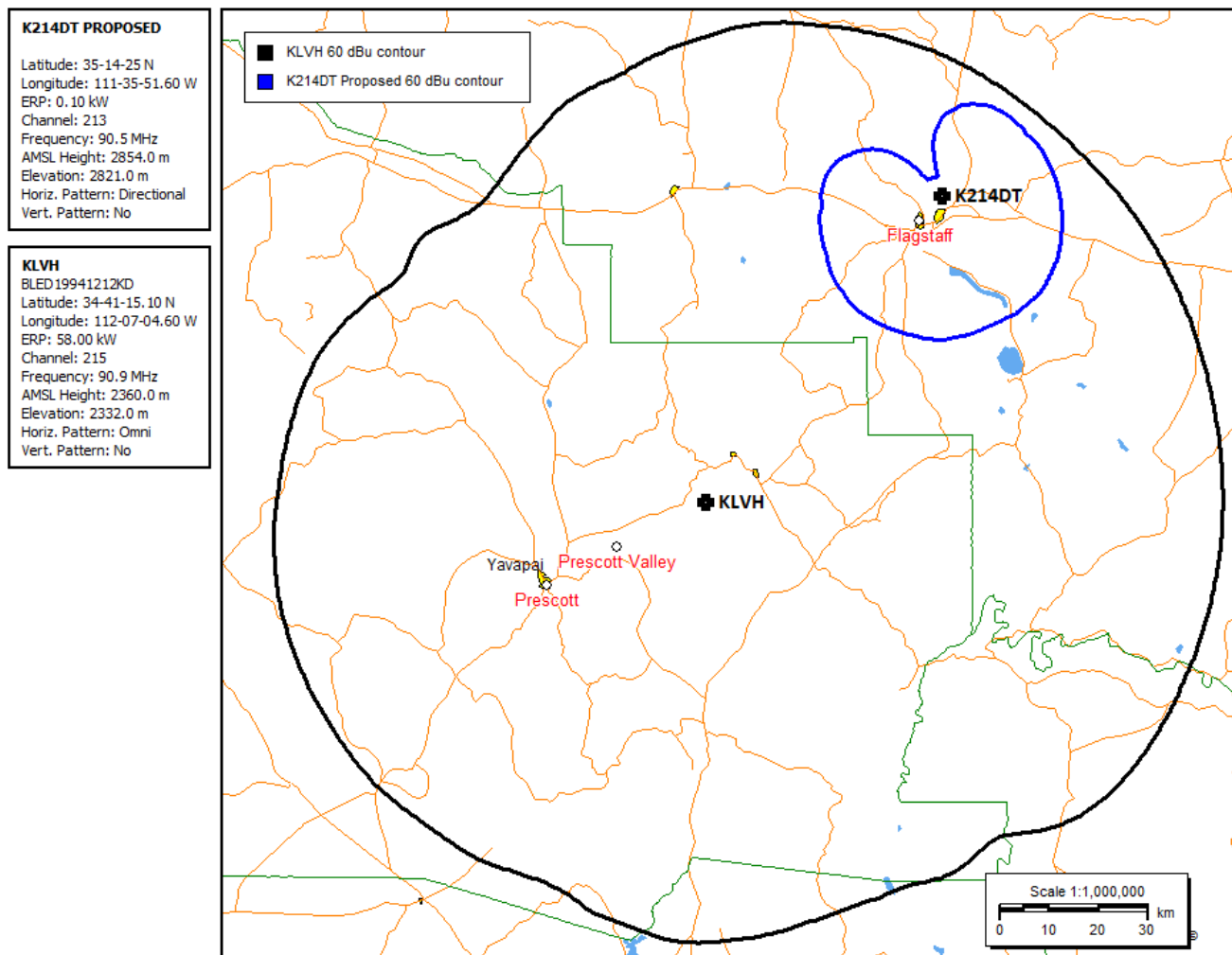
The proposed 60 dBu contour will continue to have overlap with the licensed 60 dBu contour.



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Fill-in Translator

K214DT operates as a fill-in translator for KLVH (FM), (Facility ID 24752), Prescott, AZ. The below map demonstrates that the 60 dBu contour of K214DT as proposed will be completely encompassed within the 60 dBu contour of KLVH and thus meets the required criteria for fill-in status.



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Interference Study

CH 213 35 14 25.0 / 111 35 51.6 0.100 kW ERP (V, DA) 2854.0 m COR AMSL 606.2 m HAAT

CH CITY	CALL	TYPE STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap	*OUT* in km)
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Reference station:

214D	K214DT	LIC	0.0	0.00	35 14 25.00	0.190				
Flagstaff		AZ	0.0	BLFT20160815ABE	111 35 51.60	627	2854	Educational Media Foundation		

Co-channel, 1st, 2nd, & 3rd adjacent channel relationships:

210C2	KJTA	LIC	0.0	0.00	35 14 25.00	1.000	2.1	37.1	-18.4	-37.5
Flagstaff		AZ	0.0	BMLE20181019ACE	111 35 51.60	606	2839	Family Life Broadcasting,		
212D	K212FP	LIC	275.3	116.89	35 19 48.00	0.250	10.1	7.1	82.1	72.2
Seligman		AZ	94.5	BLFT20070511AAM	112 52 40.70	-77	1607	Advance Ministries Db	New	
212A	KNAG	LIC	326.7	93.96	35 56 43.90	3.000	30.7	17.0	47.1	58.3
Grand Canyon		AZ	146.3	BLED20020123AAG	112 10 18.60	90	2046	Arizona Board Of Regents For		
212C	KFLR-FM	LIC	191.5	215.75	33 20 02.10	100.000	129.5	86.2	58.3	85.1
Phoenix		AZ	11.3	BLED20070912ABQ	112 03 46.50	483	852	Family Life Broadcasting,		
213D	K213ER	LIC	105.9	85.97	35 01 30.10	0.250	23.8	7.1	37.2	0.5
Winslow		AZ	286.5	BLFT20071214AAZ	110 41 29.50	-32	1493	Advance Ministries, Inc	Db	
213D	K213FF	LIC	224.9	101.76	34 35 20.10	0.023	40.9	12.3	32.8	4.1
Prescott		AZ	44.4	BLFT20151221CJH	112 22 54.60		1836	Advance Ministries Db	New	
215C	KLVH	LIC	217.8	77.57	34 41 15.10	58.000	14.2	102.1	35.1	-25.2
Prescott		AZ	37.5	BLED19941212KD	112 07 04.60	772	2360	Educational Media Foundation		
06	K06AE-D	LIC	217.7	77.57	37 47 14.90	0.500	9.8	5.2	15.0R	62.5M
Prescott		AZ	37.5	BLDTV20111114AAT	111 35 47.60		2347			

I.F. relationships:

N/A

Protection of CH 6 TV

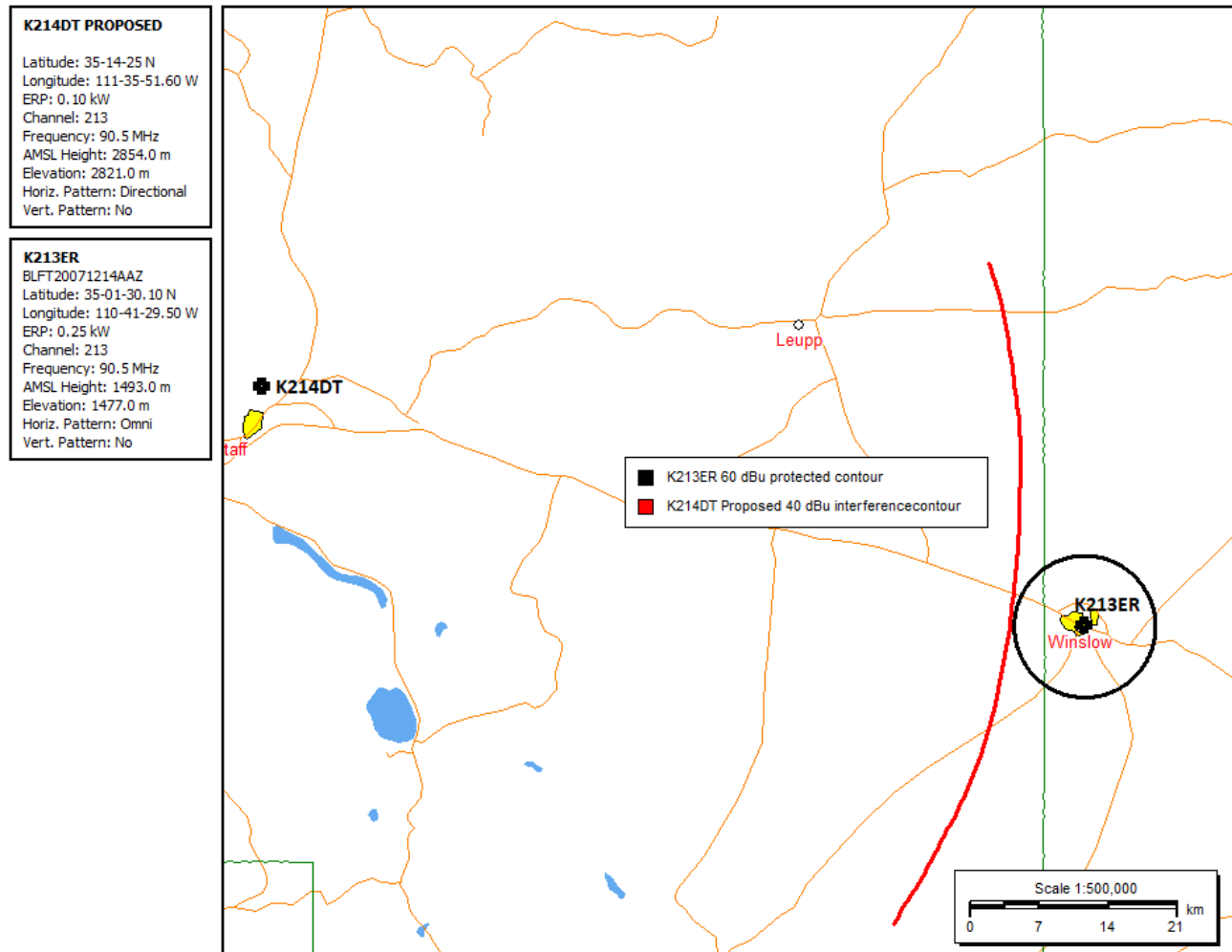
Per Section 74.1205(a), NCE-FM translator stations operating on channel 213 must provide protection to TV Channel 6 broadcast stations located within a distance of 135 km. K214DT as proposed is fully spaced to all TV Channel 6 broadcast stations within 135 km, therefore it is in full compliance with all provisions of Section 74.1205 with regard to Channel 6 TV protection.

06	K06AE-D	LIC	217.7	77.57	37 47 14.90	0.500	9.8	5.2	15.0R	62.5M
Prescott		AZ	37.5	BLDTV20111114AAT	111 35 47.60		2347			

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Interference Study

The below map demonstrates the lack of prohibited overlap of K214DT as proposed to K213ER.



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Interference Study

K214DT as proposed is located within the protected contour of the following facilities:

KJTA (LIC), CH 210C2, Flagstaff, AZ

KJTA signal strength at the K214DT site	177.1 dBu
K214DT interference contour	217.1 dBu
Distance to K214DT interference contour	0.0 meters

KLVH (LIC), CH 215C, Prescott, AZ

KLVH signal strength at K214DT site	69.4 dBu
K214DT interference contour	109.4 dBu
Maximum distance to K214DT interference contour	236.3 meters

As is demonstrated on the below map, there are no occupied structures within the 109.4 dBu interference contour (to KLVH). Therefore, based on the showing of no population within the area of predicted interference a waiver of Section 74.1204(d) is respectfully requested.



Environment Impact & RFR Compliance

K214DT is located at an established communications site that is in compliance with all environmental impact requirements.

K214DT as proposed will operate with an ERP of 0.100 kW (V, DA) at an antenna COR AGL height of 33.0 meters. For a worse case estimation at 2 meters above ground level the RFR is no more than 1.7% of the general population/uncontrolled MPE limit. There are other broadcast facilities at the site.

Facilities that contribute no more than 5% of the general population/uncontrolled MPE limit at the site comply with the requirements of OET Bulletin No. 65 with no further study, therefore K214DT as proposed is in compliance with all environmental and RFR requirements.

The site has restricted access to only authorized personnel. The applicant certifies that in cooperation with other users of the site all authorized personnel will be protected from RFR exposure in excess of FCC guidelines while accessing any controlled exposure area, including the tower, by either reducing power or ceasing operations.