

November 2016
FM Translator K266CH
Cathedral City, California Channel 266D
Allocation Study

250 Mile Window Application

This application is being filed as a modification of a “250 Mile Window” construction permit, which modified an authorized FM translator for use with an AM station.

The applicant is also the licensee of the AM station.

Allocation Study

The attached spacing study shows the spacing between the proposed translator site and the location of cochannel and adjacent channel stations and proposals. This study was made with the Commission's Class A spacing requirements, and individual situations were examined to determine the lack of prohibited contour overlap per the requirements of §74.1204 of the Rules. The attached allocation study maps demonstrate compliance with the Commission's Rules for protection of FM broadcast stations and FM translators as outlined in §74.1204.

The attached spacing study demonstrates compliance with §73.207 of the Commission's Rules regarding spacing restrictions to stations which are 53 or 54 channels removed from the proposed operation.

KPSI-FM 263B1 Palm Springs

The proposed translator transmitter site is located within the 57 dBu protected contour of third-adjacent channel station KPSI-FM 263B1 Palm Springs. The following calculation, performed using the *Living Way* methodology, demonstrates interference protection to that station.

Protected Station	Distance & Bearing to Proposal	Station ERP and HAAT on that azimuth	Station Field Strength at Proposal	Corresponding Translator Interfering Contour	Distance to Translator Interfering Contour
KPSI-FM 263B1	9.02 km 194 deg True	25 kW 443 meters	98.3 dBu F(50,50)	138.3 dBu	2.3 meters Free Space

The 138.3 dBu contour from the proposed facility extends only 2.3 meters from the antenna and does not reach ground level (which is 8 meters below the antenna). There is no population within this contour. Therefore, the proposed facility is believed to satisfy the requirements of §74.1204(d) with respect to KPSI-FM.

US-Mexico FM Agreement

The proposed facility will be located in excess of 125 kilometers from the common border with Mexico, and thus is permitted to operate with an ERP in excess of 50 watts per Section 2.1.5 of the US-Mexico FM Agreement. The attached allocation study map demonstrates that the proposed 60 dBu contour does not extend more than 8.7 kilometers beyond the 125 km line, and indeed does not cross into the 125 km zone.

SEARCH PARAMETERS

FM Database Date: 161107

Channel: 266A 101.1 MHz
 Latitude: 33 52 0
 Longitude: 116 26 0
 Safety Zone: 50 km
 Job Title: K266CH CP MOD

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Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KVLA-FM LIC	COACHELLA CA	BLED-41108AAK	212A 90.3	0.340 175.0	DA 33-48-08 116-13-30	110.4	20.57 10.57	10 CLEAR
K213AB LIC	PALM SPRINGS CA	BLFT-81107AEL	213D 90.5	0.010 416.0	DA 33-52-04 116-25-59	11.7	0.13 0.00	0 TRANS
KNLM LIC	YUCCA VALLEY CA	BLED-40206AJW	213A 90.5	3.500 75.0	34-09-15 116-11-50	34.2	38.63 28.63	10 CLEAR
KPSI-FM LIC	PALM SPRINGS CA	BLH-910314KA	263B1 100.5	25.000 37.0	33-56-44 116-24-34	14.1	9.02 -38.98	48 SHORT
KAEH LIC	BEAUMONT CA	BLH-00330ACC	265A 100.9	1.500 146.0	33-54-29 116-59-45	275.2	52.24 -19.76	72 SHORT
NEW APP	CATHEDRAL CITY CA	BNPL-31113ABD	265L1 100.9	0.050 -37.2	33-44-18 116-15-16	130.8	21.84 -34.16	56 SHORT
XHATFM	ENSENADA BN	-	266B 101.1	3.710 123.0	31-51-10 116-38-09	184.9	224.14 46.14	178 CLEAR
XHATFM	ENSENADA BN	-	266B 101.1	0.000 0.0	31-51-10 116-38-09	184.9	224.14 46.14	178 CLEAR
K266BX LIC	CACTUS CITY CA	BLFT-60705AAA	266D 101.1	0.010 0.0	DA 33-39-20 115-59-08	119.4	47.64 0.00	0 TRANS
K266CH CP MOD	CATHEDRAL CITY CA	BMPFT-60729ABE	266D 101.1	0.165 402.0	DA 33-51-55 116-26-10	238.9	0.30 0.00	0 TRANS
KBFR LIC	DESERT CENTER CA	BLH-31210BXF	266A 101.1	1.000 -110.0	33-43-10 115-23-42	99.4 SS	97.54 -17.46	115 SHORT
KRTH LIC	LOS ANGELES CA	BMLH-71015AJG	266B 101.1	51.000 955.0	34-13-38 118-04-00	285.4	156.03 -21.97	178 SHORT
KATY-FM LIC	IDYLLWILD CA	BMLH-71002ACQ	267A 101.3	1.550 200.0	33-43-31 116-44-58	241.8	33.21 -38.79	72 SHORT

SEARCH PARAMETERS

FM Database Date: 161107

Channel: 266A 101.1 MHz
 Latitude: 33 52 0
 Longitude: 116 26 0
 Safety Zone: 50 km
 Job Title: K266CH CP MOD

Page 2

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
KATY-FM1 APP	MENIFEE CA	BNPFTB-10429ABS	267D 101.3	0.500 DA 0.0	33-46-00 117-20-23	262.7	84.65 0.00	0 BOOST
K268AH LIC	PALM SPRINGS CA	BLFT-61011AAL	268D 101.5	0.010 677.0	33-52-14 116-13-39	88.6	19.05 0.00	0 TRANS
KXSB LIC	BIG BEAR LAKE CA	BLH-951010KB	269A 101.7	0.300 431.0	34-12-47 116-51-59	314.1	55.46 24.46	31 CLEAR
KKLQ-LP CP	LA QUINTA CA	BNPL-31113BNP	269L1 101.7	0.050 -310.0	33-39-01 116-18-52	155.4	26.41 -2.59	29 SHORT
KJNI-LP LIC	LAKE ELSINORE CA	BLL-50623ABA	269L1 101.7	0.100 -14.0	33-39-29 117-15-26	253.3	79.76 50.76	29 CLEAR

==== END OF FM SPACING STUDY FOR CHANNEL 266 =====

KRTH 266B Los Angeles
54 dBu F(50,50)

Cathedral City 266D
34 dBu F(50,10)
40 dBu F(50,10)

RIVERSIDE
K266BX 266D Cactus City
60 dBu F(50,50)

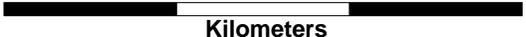
KBFR 266A Desert Center
60 dBu F(50,50)

SAN DIEGO

IMPE

Cathedral City 266D Cochannel Study Map

0 20 40 60



Kilometers

Hatfield & Dawson 11/2016

KAEH 265A Beaumont
60 dBu F(50,50)

Cathedral City 266D
54 dBu F(50,10)

App 265L1 Cathedral City
BNPL-20131113ABD
60 dBu F(50,50)

KATY-FM 267A Idyllwild
60 dBu F(50,50)

SAN DIEGO

Cathedral City 266D 1Adj Study Map

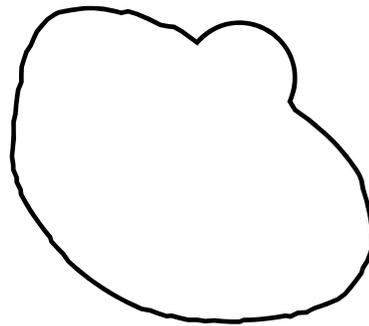
0 15 30 45

Kilometers

Hatfield & Dawson

11/2016

Cathedral City 266D
100 dBu F(50,10)



K268AH 268D Palm Springs
60 dBu F(50,50)

RIVERSIDE



Cathedral City 266D 2Adj Study Map

0 5 10 15



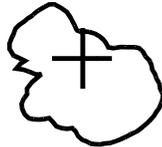
Kilometers

Hatfield & Dawson

11/2016

SAN BERNARDINO

Cathedral City 266D
60 dBu F(50,50)



RIVERSIDE

125 km from
US-Mexico Border

SAN DIEGO

IMPERIAL

Cathedral City 266D Mexico Study Map

0 20 40 60



Kilometers

Hatfield & Dawson

11/2016

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FM Translator K266CH
Cathedral City, California Channel 266D
RF Exposure Study

Facilities Proposed

The proposed operation will be on Channel 266D (101.1 MHz) with an effective radiated power of 7 watts. Operation is proposed with an antenna to be mounted on a metal pole at the Edom Hill communications site.

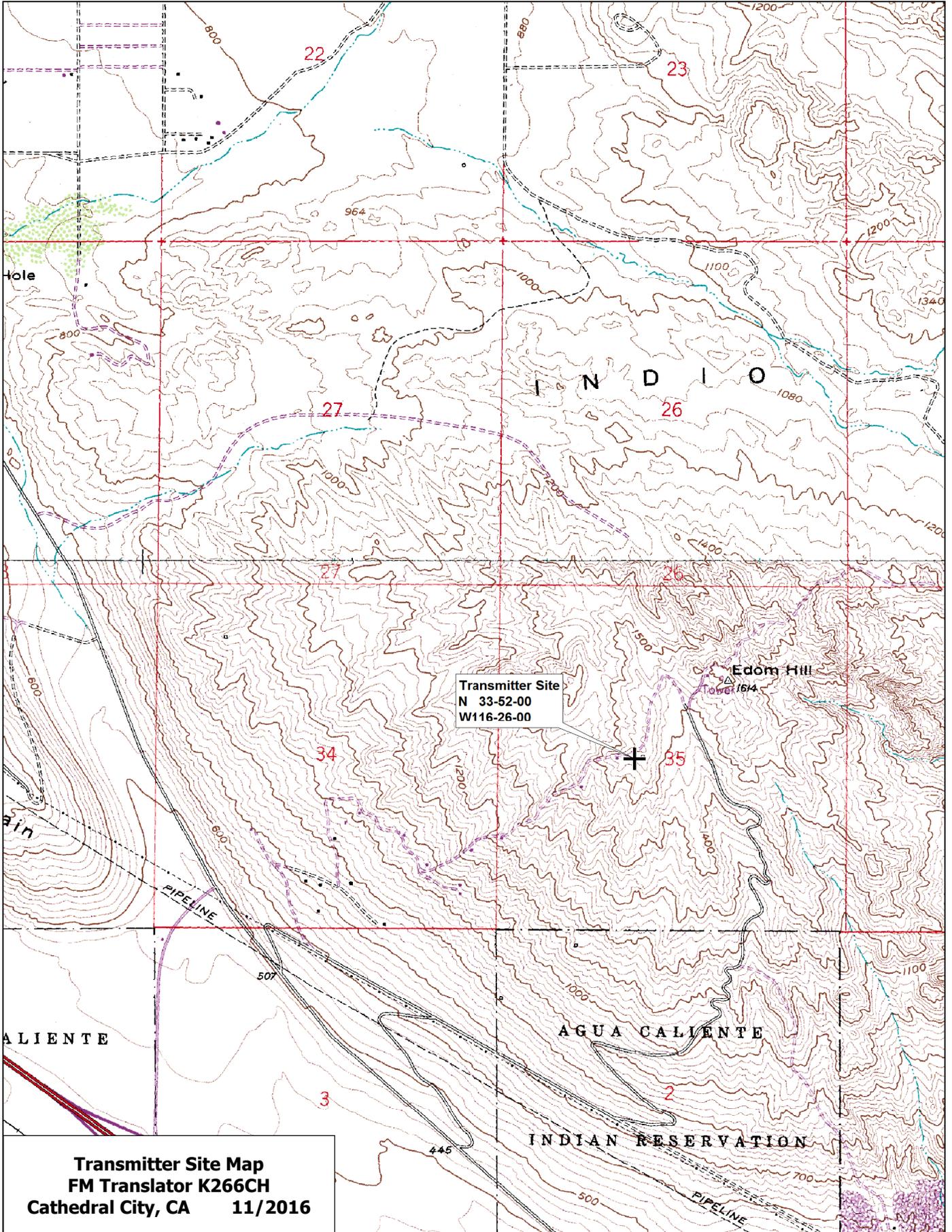
The proposed antenna support structure will not exceed 60.96 meters (200 feet) above ground and does not require notification to the Federal Aviation Administration. Therefore, this structure does not require an Antenna Structure Registration Number.

DETERMINATION Results							
PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7712.65 MTRS (7.71269 KM) AWAY							
Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	33-50-7.00N	116-30-35.00W	PALM SPRINGS INTL	RIVERSIDE PALM SPRINGS, CA	121.4	3048.0
PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7919.61 MTRS (7.9196 KM) AWAY							
Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	33-50-26.00N	116-31-3.00W	PALM SPRINGS INTL	RIVERSIDE PALM SPRINGS, CA	121.4	3048.0
Your Specifications							
NAD83 Coordinates							
Latitude						33-52-00.5 north	
Longitude						116-26-02.8 west	
Measurements (Meters)							
Overall Structure Height (AGL)						23	
Support Structure Height (AGL)						23	
Site Elevation (AMSL)						479	
Structure Type							
POLE - Any type of Pole							

TOWAIR Results

RF Exposure Calculations

Section 1.1307(b)(1) of the Commission's Rules exempts FM translators and boosters operating with an effective radiated power of 100 watts or less from the requirement to submit an Environmental Assessment to determine compliance with FCC specified guidelines for human exposure to radiofrequency electromagnetic fields. The applicant proposes operation with a maximum lobe effective radiated power of 14 watts (7 watts H + 7 watts V) and therefore no calculations have been submitted. Nonetheless, public access to the site is restricted and all station personnel and contractors are required to follow appropriate safety procedures, including turning off the transmitter if necessary, prior to commencing work on the antenna tower.



Transmitter Site Map
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Cathedral City, CA 11/2016

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