FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SPECIAL TEMPORARY AUTHORITY

Applicant Name

Name of Applicant: Cellco Partnership

Address

Attention: Simon Delgado
Street Address: 15505 Sand Canyon Avenue
P.O. Box:
City: Irvine
State: CA
Zip Code: 92618
Country:
E-Mail Address: Simon.Delgado@Verizonwireless.com

Best Contact

Give the following information of person who can best handle inquiries pertaining to this application:
Last Name: Delgado
First Name: Simon
Title: RF Design Engineer
Phone Number: 714-713-3954

Explanation

Please explain in the area below why an STA is necessary:
See Exhibit 1 – Verizon Wireless requests experimental STA to conduct wireless CBRS trials utilizing 3.5 GHz spectrum

Purpose of Operation

Please explain the purpose of operation: Verizon Wireless is working with base station and mobile device equipment vendors to conduct product testing of 3.5 GHz in both indoor and outdoor locations listed below.

Information

Callsign:
Class of Station: FX
Nature of Service: Experimental

Requested Period of Operation

Operation Start Date: 11/15/2018
Operation End Date: 05/15/2019

Manufacturer

List below transmitting equipment to be installed (if experimental, so state) if additional rows are required, please submit equipment list as an exhibit:

Manufacturer	Model Number	No. Of Units	Experimental
Berkeley Varitronics	Tortoise	1	No

Certification

Neither the applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. The applicant hereby waives any claim to the use of any particular frequency or electromagnetic spectrum as against the regulatory power of the United States because of the prvious use of the same, whether by license or otherwise, and requests authorization in accordance with this application. (See

Section 304 of the Communications Act of 1934, as amended.) The applicant acknowledges that all statements made in this application and attached exhibits are considered material representations, and that all the exhibits part hereof and are incorporated herein as if set out in full in this application; undersigned certifies that all statements in this application are true, complete and correct to the best of his/her knowledge and belief and are made in good faith. Applicant certifies that construction of the station would NOT be an action which is likely to have a significant environmental effect. See the Commission's Rules, 47 CFR1.1301-1.1319.

Signature of Applicant (Authorized person filing form): Gregory M Romano

Title of Applicant (if any): Vice President - Regulatory Affairs

Date: 2018-10-29 00:00:00.0

Station Location

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 3 13	West 118 5 3		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 108.00

(c) Distance to nearest aircraft landing area in kilometers: 18.00

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 24 2 27	West 118 15 53		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 73.00

(c) Distance to nearest aircraft landing area in kilometers: 16.20

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 2 46	West 118 15 5		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 80.00

(c) Distance to nearest aircraft landing area in kilometers: 17.55

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 2 52	West 118 15 34		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 80.00

(c) Distance to nearest aircraft landing area in kilometers: 16.85

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 3 59	West 118 26 51		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 106.00

(c) Distance to nearest aircraft landing area in kilometers: 5.17

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 3 50	West 118 20 50		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 60.00

(c) Distance to nearest aircraft landing area in kilometers: 10.40

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Beverly Hills	California	North 34 3 54	West 118 23 57		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 66.00

(c) Distance to nearest aircraft landing area in kilometers: 6.60

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
West Hollywood	California	North 34 5 27	West 118 21 28		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 89.00

(c) Distance to nearest aircraft landing area in kilometers: 11.55

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 3 51	West 118 17 18		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 82.00

(c) Distance to nearest aircraft landing area in kilometers: 15.40

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Pasadena	California	North 34 8 44	West 118 8 19		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 255.00

(c) Distance to nearest aircraft landing area in kilometers: 11.95

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-	FX	20.000000 W	P	0.00040000 %	30K0N0N	none

3700.00000000 MHz 317.000000 W

City	State	Latitude	Longitude	Mobile	Radius of Operation
Passadena	California	North 34 8 46	West 118 6 19		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 229.00

(c) Distance to nearest aircraft landing area in kilometers: 9.00

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 3 0	West 118 23 33		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 51.00

(c) Distance to nearest aircraft landing area in kilometers: 5.93

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 1 37	West 118 19 25		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a

building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 41.00

(c) Distance to nearest aircraft landing area in kilometers: 11.15

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
South Pasadena	California	North 34 6 56	West 118 9 16		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 204.00

(c) Distance to nearest aircraft landing area in kilometers: 11.70

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 33 59 1	West 118 20 22		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 59.00

(c) Distance to nearest aircraft landing area in kilometers: 6.05

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 2 42	West 118		5.00

14 20

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 80.00

(c) Distance to nearest aircraft landing area in kilometers: 17.25

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 5 52	West 118 21 10		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 107.00

(c) Distance to nearest aircraft landing area in kilometers: 10.90

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Beverly Hills	California	North 34 4 13	West 118 24 3		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 76.00

(c) Distance to nearest aircraft landing area in kilometers: 7.00

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Los Angeles	California	North 34 2 15	West 118 14 52		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 75.00

(c) Distance to nearest aircraft landing area in kilometers: 16.20

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none

City	State	Latitude	Longitude	Mobile	Radius of Operation
Pasadena	California	North 34 8 44	West 118 8 49		5.00

Datum: NAD 83

Is a directional antenna (other than radar) used? No

Exhibit submitted: No

(a) Width of beam in degrees at the half-power point:

(b) Orientation in horizontal plane:

(c) Orientation in vertical plane:

Will the antenna extend more than 6 meters above the ground, or if mounted on an existing building, will it extend more than 6 meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? Yes

(a) Overall height above ground to tip of antenna in meters: 10.00

(b) Elevation of ground at antenna site above mean sea level in meters: 258.00

(c) Distance to nearest aircraft landing area in kilometers: 12.20

(d) List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft: None

Action	Frequency	Station Class	Output Power/ERP	Mean Peak	Frequency Tolerance (+/-)	Emission Designator	Modulating Signal
New	3550.00000000-3700.00000000 MHz	FX	20.000000 W 317.000000 W	P	0.00040000 %	30K0N0N	none