

August 7, 2019

VIA IBFS

Jose P. Albuquerque
Chief, Satellite Division, International Bureau
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: **WorldVu Satellites Limited, Earth Station License Applications
IBFS File Nos. SES-LIC-20180604-01082; SES-LIC-20180727-02075;
SES-LIC-20180727-02076; SES-LIC-20190422-00538
Call Signs E180620; E181293; E181294; E190236**

Dear Mr. Albuquerque:

WorldVu Satellites Limited (“OneWeb”), by counsel, hereby submits this letter reflecting revisions made to Comsearch coordination reports submitted in the above-captioned dockets, as requested by Commission staff. The attached Comsearch coordination reports for each earth station application make explicit reference to coordination under Section 25.136(a)(4) of the Commission’s rules.

Additionally, Comsearch distributed the following notice to existing and proposed terrestrial operators in the 27.5 – 28.35 GHz band:

“Pursuant to Section 101.103(d)(2)(ix) of the Commission’s Rules, you are notified that the coordination reports in the above-referenced applications are being amended to clarify that, in the frequency band 27.5 – 28.35 GHz, the applicant is seeking an authorization pursuant to Section 25.136(a)(4) of the Commission’s Rules. No response is required.”

Kindly contact the undersigned with any questions regarding this submission.

Very truly yours,

/s/ Brian D. Weimer

Brian D. Weimer
for SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

cc: Paul Blais, FCC

Ka-Band Earth Station – Santa Paula, CA

Frequency Coordination Report

28 GHz



Prepared on Behalf of
WorldVu Satellites
Limited

March 7, 2019



COMSEARCH
A CommScope Company

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1. Summary of Results

On behalf of WorldVu Satellites Limited, Comsearch performed a coordination notice under Section 25.136(a)(4) of the FCC’s rules for all existing and proposed terrestrial licenses within the coordination contours of their proposed Ka-Band earth station in Santa Paula, CA, which will transmit at 28 GHz¹. Prior-notification letters were sent to the licensees and a copy of the notification data is provided in section four of this report. The earth station coordination was finalized on March 6, 2019.

No objections were received from any of the incumbent 28 GHz licensees.

2. 28 GHz Common Carrier and LTTS Coordination

In accordance with FCC Rules and Regulations, the Ka-Band earth station in Santa Paula, CA was prior-coordinated by Comsearch. A notification letter and datasheets for this earth station were sent to the following 28 GHz common carrier fixed microwave licensees. These licensees are authorized to operate temporary fixed operations from 27.5 – 29.5 GHz on a nationwide basis or local basis.

Licensee	Authorized Geographic Area
BellSouth Telecommunications, LLC	California
Frontier Southwest Incorporated	Nationwide
M.U.T. Licensing, LLC	California

A notification letter and datasheets for the Ka-Band earth station in Santa Paula, CA were also sent to the following 28 GHz local television transmission licensee. This licensee is authorized to operate temporary fixed operations from 27.5 – 29.5 GHz on a nationwide basis.

Licensee	Authorized Geographic Area
Information Super Station, LLC	Nationwide

No objections were received from the common carrier or local television transmission service incumbents.

¹ The proposed earth station will operate in the 27.5 – 29.1, 29.5 – 30.0 GHz portion of the Ka-Band.

3. 28 GHz LMDS and UMFUS Coordination

A Notification letter was sent to the following 28 GHz LMDS licensees. The proposed earth station will operate on frequencies that overlap Block A of the LMDS service. The total frequency allocation for Block A of the LMDS spectrum appears below.

Block A: 27.500-28.350 GHz
29.100-29.250 GHz
31.075-31.225 GHz

Licensee	Channels	Market
Cellco Partnership	Block A	County Based
NextWeb, Inc. d/b/a TelePacific Communications	Block A	County Based

A Notification letter was sent to the following 28 GHz UMFUS licensees. The proposed earth station will operate on frequencies that overlap Channel L1 & L2 of the UMFUS service. The total frequency allocation for Channels L1 & L2 of the UMFUS spectrum appears below.

Channel: L1 27.500 - 27.925 GHz
L2 27.925 - 28.350 GHz

Licensee	Channel	Market
Cellco Partnership	L1, L2	County Based
NextWeb, Inc. d/b/a TelePacific Communications	L1, L2	County Based
T-Mobile License LLC	L2	County Based

No objections were received from the LMDS or UMFUS incumbents.

4. Earth Station Coordination Data

This section presents the data pertinent to the proposed Ka-Band earth station in Santa Paula, CA. This data was circulated to all incumbent licensees in the shared 28 GHz frequency ranges.

Date: 01/30/2019
Job Number: 190130COMSGE02

Administrative Information

Status: ENGINEER PROPOSAL
Call Sign: <PCNCallSign>
Licensee Code: WORSAT
Licensee Name: WorldVu Satellites Limited

Site Information

VENUE: SANTA PAULA, CA
Venue Name: SANTA PAULA, CA
Latitude (NAD 83): 34° 24' 7.2" N
Longitude (NAD 83): 119° 4' 23.5" W
Climate Zone: A
Rain Zone: 4
Ground Elevation (AMSL): 232.18 m / 761.7 ft

Link Information

Satellite Type: Low Earth Orbit
Mode: TR - Transmit-Receive
Modulation: Digital
Minimum Elevation Angle: 5.0°
Azimuth Range: 0.0° to 360°
Antenna Centerline (AGL): 2.74 m / 9.0 ft

Antenna Information

		Receive - FCC32		Transmit - FCC32	
Manufacturer		CPI		CPI	
Model		3.5 meter		3.5 meter	
Gain / Diameter		54.6 dBi / 3.5 m		58.0 dBi / 3.5 m	
3-dB / 15-dB Beamwidth		0.32° / 0.36°		0.21° / 0.23°	
Max Available RF Power	(dBW/4 kHz) (dBW/MHz)			-39.6 -15.6	
Maximum EIRP	(dBW/4 kHz) (dBW/MHz)			18.4 42.4	
Interference Objectives:	Long Term	-152.4 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
	Short Term	-142.4 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%

Frequency Information

	Receive 18.0 GHz	Transmit 28.0 GHz
Emission / Frequency Range (MHz)	2M16G7D - 18M0G7D / 17800.0 - 18600.0 2M16G7D - 18M0G7D / 18800.0 - 19300.0	230MG7D / 27500.0 - 29100.0 230MG7D / 29500.0 - 30000.0
Max Great Circle Coordination Distance	129.0 km / 80.1 mi	100.0 km / 62.1 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi	100.0 km / 62.1 mi



**WorldVu Satellites Limited
Ka-Band Earth Station – Santa Paula, CA
Frequency Coordination Report
28 GHz**

Coordination Values	SANTA PAULA, CA			
Licensee Name	WorldVu Satellites Limited			
Latitude (NAD 83)	34° 24' 7.2" N			
Longitude (NAD 83)	119° 4' 23.5" W			
Ground Elevation (AMSL)	232.18 m / 761.7 ft			
Antenna Centerline (AGL)	2.74 m / 9.0 ft			
Antenna Model	CPI 3.5 meter			
Antenna Mode	Receive 18.0 GHz		Transmit 28.0 GHz	
Interference Objectives: Long Term	-152.4 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
Short Term	-142.4 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power		-39.6 (dBW/4 kHz)		

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 28.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	75.13	11.53	129.00	12.07	100.00
5	0.00	70.92	11.53	129.00	12.07	100.00
10	0.00	66.76	11.53	129.00	12.07	100.00
15	0.00	62.65	11.53	129.00	12.07	100.00
20	0.00	58.63	11.53	129.00	12.07	100.00
25	0.00	54.70	11.53	129.00	12.07	100.00
30	0.00	50.89	11.53	129.00	12.07	100.00
35	0.00	47.24	11.53	129.00	12.07	100.00
40	0.00	43.80	11.53	129.00	12.07	100.00
45	0.00	40.60	11.53	129.00	12.07	100.00
50	0.00	37.73	11.53	129.00	12.07	100.00
55	0.00	35.26	11.53	129.00	12.07	100.00
60	0.00	33.29	11.53	129.00	12.07	100.00
65	0.00	31.90	11.53	129.00	12.07	100.00
70	0.00	31.17	11.53	129.00	12.07	100.00
75	0.00	31.17	11.53	129.00	12.07	100.00
80	0.00	31.87	11.53	129.00	12.07	100.00
85	0.00	33.24	11.53	129.00	12.07	100.00
90	0.00	35.20	11.53	129.00	12.07	100.00
95	0.00	37.66	11.53	129.00	12.07	100.00
100	0.00	40.53	11.53	129.00	12.07	100.00
105	0.00	43.71	11.53	129.00	12.07	100.00
110	0.00	47.15	11.53	129.00	12.07	100.00
115	0.00	50.80	11.53	129.00	12.07	100.00
120	0.00	54.60	11.53	129.00	12.07	100.00
125	0.00	58.52	11.53	129.00	12.07	100.00
130	0.00	62.55	11.53	129.00	12.07	100.00
135	0.00	66.65	11.53	129.00	12.07	100.00
140	0.00	70.81	11.53	129.00	12.07	100.00
145	0.00	75.02	11.53	129.00	12.07	100.00
150	0.00	79.26	11.53	129.00	12.07	100.00
155	0.00	83.53	11.53	129.00	12.07	100.00
160	0.00	87.80	11.53	129.00	12.07	100.00
165	0.00	92.09	11.53	129.00	12.07	100.00
170	0.00	96.36	11.53	129.00	12.07	100.00
175	0.00	100.63	11.53	129.00	12.07	100.00
180	0.00	104.87	11.53	129.00	12.07	100.00
185	0.00	109.08	11.53	129.00	12.07	100.00

Coordination Values	SANTA PAULA, CA				
Licensee Name	WorldVu Satellites Limited				
Latitude (NAD 83)	34° 24' 7.2" N				
Longitude (NAD 83)	119° 4' 23.5" W				
Ground Elevation (AMSL)	232.18 m / 761.7 ft				
Antenna Centerline (AGL)	2.74 m / 9.0 ft				
Antenna Model	CPI 3.5 meter				
Antenna Mode	Receive 18.0 GHz		Transmit 28.0 GHz		
Interference Objectives:	Long Term	-152.4 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
	Short Term	-142.4 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power	-39.6 (dBW/4 kHz)				

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 28.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	113.24	11.53	129.00	12.07	100.00
195	0.00	117.35	11.53	129.00	12.07	100.00
200	0.00	121.37	11.53	129.00	12.07	100.00
205	0.00	125.30	11.53	129.00	12.07	100.00
210	0.00	129.11	11.53	129.00	12.07	100.00
215	0.00	132.76	11.53	129.00	12.07	100.00
220	0.00	136.20	11.53	129.00	12.07	100.00
225	0.00	139.40	11.53	129.00	12.07	100.00
230	0.00	142.27	11.53	129.00	12.07	100.00
235	0.00	144.74	11.53	129.00	12.07	100.00
240	0.00	146.71	11.53	129.00	12.07	100.00
245	0.00	148.10	11.53	129.00	12.07	100.00
250	0.00	148.83	11.53	129.00	12.07	100.00
255	0.00	148.83	11.53	129.00	12.07	100.00
260	0.00	148.13	11.53	129.00	12.07	100.00
265	0.00	146.76	11.53	129.00	12.07	100.00
270	0.00	144.80	11.53	129.00	12.07	100.00
275	0.00	142.34	11.53	129.00	12.07	100.00
280	0.00	139.47	11.53	129.00	12.07	100.00
285	0.00	136.29	11.53	129.00	12.07	100.00
290	0.00	132.85	11.53	129.00	12.07	100.00
295	0.00	129.20	11.53	129.00	12.07	100.00
300	0.00	125.40	11.53	129.00	12.07	100.00
305	0.00	121.48	11.53	129.00	12.07	100.00
310	0.00	117.45	11.53	129.00	12.07	100.00
315	0.00	113.35	11.53	129.00	12.07	100.00
320	0.00	109.19	11.53	129.00	12.07	100.00
325	0.00	104.98	11.53	129.00	12.07	100.00
330	0.00	100.74	11.53	129.00	12.07	100.00
335	0.00	96.47	11.53	129.00	12.07	100.00
340	0.00	92.20	11.53	129.00	12.07	100.00
345	0.00	87.91	11.53	129.00	12.07	100.00
350	0.00	83.64	11.53	129.00	12.07	100.00
355	0.00	79.37	11.53	129.00	12.07	100.00

5. Contact Information

For questions or information regarding the 28 GHz Frequency Coordination Report, please contact:

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