

August 7, 2019

**VIA IBFS**

Jose P. Albuquerque  
Chief, Satellite Division, International Bureau  
Federal Communications Commission  
445 12<sup>th</sup> 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 – Talkeetna, AK

## Frequency Coordination Report

28 GHz



Prepared on Behalf of  
WorldVu Satellites  
Limited

May 15, 2018



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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 Talkeetna, AK, which will transmit at 28 GHz<sup>1</sup>. 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 May 14, 2018.

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 Talkeetna, AK 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
Alascom	Alaska
Frontier Southwest Incorporated	Nationwide
The Alaska Wireless Network, LLC	Alaska

A notification letter and datasheets for the Ka-Band earth station in Talkeetna, AK 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.

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<sup>1</sup> 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 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	Market	Market Name
Sprint	BTA014	Anchorage, AK

## **4. Earth Station Coordination Data**

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

Date: 04/06/2018  
Job Number: 180406COMSGE04

#### Administrative Information

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

#### Site Information

#### TALKEETNA, AK

Venue Name:  
Latitude (NAD 83): 62° 19' 59.1" N  
Longitude (NAD 83): 150° 1' 52.4" W  
Climate Zone: A  
Rain Zone: 2  
Ground Elevation (AMSL): 148.0 m / 485.6 ft

#### Link Information

Satellite Type: Low Earth Orbit  
Mode: TR - Transmit-Receive  
Modulation: Digital  
Minimum Elevation Angle: 10.0°  
Azimuth Range: 0.0° to 360°  
Antenna Centerline (AGL): 2.44 m / 8.0 ft

#### Antenna Information

Manufacturer:  
Model:  
Gain / Diameter: 54.6 dBi / 3.5 m  
3-dB / 15-dB Beamwidth: 0.32° / 0.36°

#### Receive -

CPI  
3.5 meter  
54.6 dBi / 3.5 m  
0.32° / 0.36°

#### Transmit -

CPI  
3.5 meter  
58.0 dBi / 3.5 m  
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 Short Term  
-152.4 dBW/MHz 20%  
-142.4 dBW/MHz 0.01%

-151.0 dBW/4 kHz 20%  
-128.0 dBW/4 kHz 0.0025%

#### Frequency Information

Emission / Frequency Range (MHz)  
2M16G7D - 18M0G7D / 17800.0 - 18600.0  
2M16G7D - 18M0G7D / 18800.0 - 19300.0

#### Receive 18.0 GHz

#### Transmit 28.0 GHz

230MG7D / 27500.0 - 29100.0  
230MG7D / 29500.0 - 30000.0

Max Great Circle Coordination Distance: 120.0 km / 74.6 mi  
Precipitation Scatter Contour Radius: 100.0 km / 62.1 mi

100.0 km / 62.1 mi  
100.0 km / 62.1 mi



**Coordination Values**

Licensee Name  
Latitude (NAD 83)  
Longitude (NAD 83)  
Ground Elevation (AMSL)  
Antenna Model  
Interference Objectives: Long Term  
Short Term

**TALKEETNA, AK**

WorldVu Satellites Limited  
62° 19' 59.1" N  
150° 1' 52.4" W  
148.0 m / 485.6 ft/Antenna Centerline (AGL)  
CPI 3.5 meter

2.44 m / 8.0 ft

-152.4 dBW/MHz

20%

-151.0 dBW/4 kHz

20%

-142.4 dBW/MHz

0.01%

-128.0 dBW/4 kHz

0.0025%

Max Available RF Power

-39.6 (dBW/4 kHz)

Receive 18.0 GHz

Transmit 28.0 GHz

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	44.18	7.00	120.00	8.76	100.00
5	0.00	40.97	7.00	120.00	8.76	100.00
10	0.00	38.07	7.00	120.00	8.76	100.00
15	0.00	35.56	7.00	120.00	8.76	100.00
20	0.00	33.53	7.00	120.00	8.76	100.00
25	0.00	32.08	7.00	120.00	8.76	100.00
30	0.00	31.29	7.00	120.00	8.76	100.00
35	0.00	31.21	7.00	120.00	8.76	100.00
40	0.00	31.84	7.00	120.00	8.76	100.00
45	0.00	33.15	7.00	120.00	8.76	100.00
50	0.00	35.05	7.00	120.00	8.76	100.00
55	0.00	37.46	7.00	120.00	8.76	100.00
60	0.00	40.27	7.00	120.00	8.76	100.00
65	0.00	43.43	7.00	120.00	8.76	100.00
70	0.00	46.84	7.00	120.00	8.76	100.00
75	0.00	50.46	7.00	120.00	8.76	100.00
80	0.00	54.24	7.00	120.00	8.76	100.00
85	0.00	58.15	7.00	120.00	8.76	100.00
90	0.00	62.16	7.00	120.00	8.76	100.00
95	0.00	66.25	7.00	120.00	8.76	100.00
100	0.00	70.41	7.00	120.00	8.76	100.00
105	0.00	74.61	7.00	120.00	8.76	100.00
110	0.00	78.84	7.00	120.00	8.76	100.00
115	0.00	83.10	7.00	120.00	8.76	100.00
120	0.00	87.37	7.00	120.00	8.76	100.00
125	0.00	91.65	7.00	120.00	8.76	100.00
130	0.00	95.93	7.00	120.00	8.76	100.00
135	0.00	100.19	7.00	120.00	8.76	100.00
140	0.00	104.43	7.00	120.00	8.76	100.00
145	0.00	108.64	7.00	120.00	8.76	100.00
150	0.00	112.80	7.00	120.00	8.76	100.00
155	0.00	116.91	7.00	120.00	8.76	100.00
160	0.00	120.94	7.00	120.00	8.76	100.00
165	0.00	124.88	7.00	120.00	8.76	100.00
170	0.00	128.69	7.00	120.00	8.76	100.00
175	0.00	132.35	7.00	120.00	8.76	100.00
180	0.00	135.82	7.00	120.00	8.76	100.00
185	0.00	139.03	7.00	120.00	8.76	100.00



**Coordination Values**

Licensee Name	<b>TALKEETNA, AK</b> WorldVu Satellites Limited					
Latitude (NAD 83)	62° 19' 59.1" N					
Longitude (NAD 83)	150° 1' 52.4" W					
Ground Elevation (AMSL)	148.0 m / 485.6 ft/Antenna Centerline (AGL)					
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) Receive 18.0 GHz					
	Transmit 28.0 GHz					

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	141.93	7.00	120.00	8.76	100.00
195	0.00	144.44	7.00	120.00	8.76	100.00
200	0.00	146.47	7.00	120.00	8.76	100.00
205	0.00	147.92	7.00	120.00	8.76	100.00
210	0.00	148.71	7.00	120.00	8.76	100.00
215	0.00	148.79	7.00	120.00	8.76	100.00
220	0.00	148.16	7.00	120.00	8.76	100.00
225	0.00	146.85	7.00	120.00	8.76	100.00
230	0.00	144.95	7.00	120.00	8.76	100.00
235	0.00	142.54	7.00	120.00	8.76	100.00
240	0.00	139.73	7.00	120.00	8.76	100.00
245	0.00	136.57	7.00	120.00	8.76	100.00
250	0.00	133.16	7.00	120.00	8.76	100.00
255	0.00	129.54	7.00	120.00	8.76	100.00
260	0.00	125.76	7.00	120.00	8.76	100.00
265	0.00	121.85	7.00	120.00	8.76	100.00
270	0.00	117.84	7.00	120.00	8.76	100.00
275	0.00	113.75	7.00	120.00	8.76	100.00
280	0.00	109.59	7.00	120.00	8.76	100.00
285	0.00	105.39	7.00	120.00	8.76	100.00
290	0.00	101.16	7.00	120.00	8.76	100.00
295	0.00	96.90	7.00	120.00	8.76	100.00
300	0.00	92.63	7.00	120.00	8.76	100.00
305	0.00	88.35	7.00	120.00	8.76	100.00
310	0.00	84.07	7.00	120.00	8.76	100.00
315	0.00	79.81	7.00	120.00	8.76	100.00
320	0.00	75.57	7.00	120.00	8.76	100.00
325	0.00	71.36	7.00	120.00	8.76	100.00
330	0.00	67.20	7.00	120.00	8.76	100.00
335	0.00	63.09	7.00	120.00	8.76	100.00
340	0.00	59.06	7.00	120.00	8.76	100.00
345	0.00	55.12	7.00	120.00	8.76	100.00
350	0.00	51.31	7.00	120.00	8.76	100.00
355	0.00	47.65	7.00	120.00	8.76	100.00

## **5. Contact Information**

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

Contact person:	Dennis Jimeno
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