FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
Skybox Imaging
HALF MOON BAY, CA
Satellite Earth Station

Prepared By:
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147
September 13, 2013

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1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier and private microwave environment based on the proposed operational parameters of the S-band uplink and the coordination agreement that is in place with the local Broadcast community.

2. SUMMARY OF RESULTS

The interference study and Frequency Coordination of the proposed earth station resulted in a Coordination Agreement between Skybox Imaging and the local Broadcast coordination community.

The Coordination Agreement indicates that Skybox Imaging will coordinate each transmission of the proposed uplink with the designated local Broadcast coordination community and identify a specific contact at Skybox Imaging that will have the ability to cease transmission at the uplink site in the event of late breaking news events for the Broadcasters using the proposed uplink frequencies of 2081 – 2083 MHz.

There are no outstanding interference objections to this proposed S-band uplink based on the Coordination Agreement set in place.

3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 08/30/2013.

Company
3G Wireless, LLC
AERIAL VIDEO SYSTEMS
AT&T California
Alascom Inc
Ascent Media Network Services, LLC
Bellsouth Telecommunications, Inc.
Borgeson, Tom R.
Broadcast Sports Inc.
CBS Broadcasting Inc
CNG Communications, Inc.
CNN America, Inc.
COWLES CALIFORNIA MEDIA COMPANY
Carolina Telephone and Telegraph Co
Casper, John
CenturyTel of the Southwest, Inc.
Channel 40, Inc.
Chicago Comnet Corp
Cincinnati Bell Wireless LLC
Citywide News Network, Inc.
Cohen, Elana
Cowboys Stadium LP
DCI II, INC.
Direct Broadcast Services, Inc.
GOODYEAR TIRE AND RUBBER COMPANY
GSN New, Inc
Global Microwave Systems Inc
HF Enterprises, Inc
Hallco Unlimited, Inc.
Hawaiian Telcom, Inc.
Hearst Stations, Inc.
Heiden, William
Illinois Bell Telephone Company
Indiana Bell Telephone Company
Information & Display Systems, Inc.
Information Super Station, LLC
International Communications Group, Inc.
KDTV License Partnership, G.P.
KGO TELEVISION INCORPORATED
KSBY Communications Inc
KTVU, LLC

KUVS License Partnership, G.P.
KXTV, Inc.
Kentucky RSA #3 Cellular General Partner
Kentucky RSA #4 Cellular General Partner
MERCURY COMMUNICATIONS
Metro Networks Communications, Inc.
Michigan Bell Telephone Company
Moreen, Steven K
NEW ENGLAND DIGITAL DISTRIBUTION, INC.
NEW ENGLAND SATELLITE SYSTEMS INC
NSM Surveillance
Navajo Communications Company
NorthWest Suburbs Community Access Corp
Ohio Bell Telephone Company
On Scene Video Production
Onboard Images
Penn Service Microwave Co., Inc.
Plateau Telecommunications, Inc.
Plum TV, LLC
Production & Satellite Services, Inc.
Public Television Communications Center
QUICK LINK CONNECTIONS INC
QWEST CORPORATION
RCC Minnesota Inc. - MN NE ND SD
REMOTE FACILITIES CONSULTING SERVICES
RF Central, LLC
RF Film, Inc
Radiofone, Inc.
Randy Hermes Production
Regulus Media Services, Inc.
Remote Broadcasts, Inc.
SEAL ROCK BROADCASTERS LLC
Sacramento Television Stations, Inc
SBE Area Coordinator
Southwestern Bell Telephone L.P.
Speedshotz, Inc
Total RF Marketing Inc
Unisat, Inc.
United Telephone - Southeast
VERIZON SOUTH INC.
Verizon California Inc.
Verizon Maryland, Inc.
Verizon New England Inc.
Verizon New Jersey, Inc.
Verizon New York, Inc.
Verizon North Inc.
Verizon Northwest Inc.
Verizon Pennsylvania, Inc.
Verizon Virginia, Inc.
Verizon Washington DC, Inc.
Village Video Productions Inc
Vyvx, LLC
Westar Satellite Services LP
Western Technical Services
Wexler Video, Inc.
Winged Vision Inc

Wisconsin Bell, Inc.
Wolfe Air Aviation
YOUNG BROADCASTING OF SAN FRANCISCO INC

4. EARTH STATION COORDINATION DATA

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Date:	09/13/2013
Job Number:	130830COMSGE01

Administrative Information

Status	ENGINEER PROPOSAL
Call Sign	E130037
Licensee Code	SKYBOX
Licensee Name	Skybox Imaging

Site Information — HALF MOON BA, CA

Venue Name	
Latitude (NAD 83)	37° 26' 49.4" N
Longitude (NAD 83)	122° 25' 49.2" W
Climate Zone	A
Rain Zone	4
Ground Elevation (AMSL)	25.0 m / 82.0 ft

Link Information

Satellite Type	Low Earth Orbit
Mode	TO - Transmit-Only
Modulation	Digital
Minimum Elevation Angle	10.0°
Azimuth Range	0.0° to 360°
Antenna Centerline (AGL)	3.66 m / 12.0 ft

Antenna Information — Transmit - FCC32

Manufacturer		Orbital
Model		1.8AEHT
Gain / Diameter		29.3 dBi / 1.8 m
3-dB / 15-dB Beamwidth		5.00° / 10.00°
Max Available RF Power	(dBW/4 kHz)	-4.7
	(dBW/MHz)	19.3
Maximum EIRP	(dBW/4 kHz)	24.6
	(dBW/MHz)	48.6
Interference Objectives:	Long Term	-154.0 dBW/4 kHz 20%
	Short Term	-131.0 dBW/4 kHz 0.0025%

Frequency Information — Transmit 2.0 GHz

Emission / Frequency Range (MHz)	110KF1D / 2081.0 - 2083.0
Max Great Circle Coordination Distance	212.0 km / 131.7 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi

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Coordination Values	**HALF MOON BAY, CA**
Licensee Name	Skybox Imaging
Latitude (NAD 83)	37° 26' 49.4" N
Longitude (NAD 83)	122° 25' 49.2" W
Ground Elevation (AMSL)	25.0 m / 82.0 ft
Antenna Centerline (AGL)	3.66 m / 12.0 ft
Antenna Model	Orbital 1.8 Meter
Antenna Mode	Transmit 2.0 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-4.7 (dBW/4 kHz)

			Transmit 2.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00		8.70	212.00
5	0.00		8.70	212.00
10	0.00		8.70	212.00
15	0.00		8.70	212.00
20	0.00		8.70	212.00
25	0.00		8.70	212.00
30	0.00		8.70	212.00
35	0.00		8.70	212.00
40	0.00		8.70	212.00
45	0.00		8.70	212.00
50	0.00		8.70	212.00
55	0.00		8.70	212.00
60	0.00		8.70	212.00
65	0.00		8.70	212.00
70	0.00		8.70	212.00
75	0.00		8.70	212.00
80	0.00		8.70	212.00
85	0.00		8.70	212.00
90	0.00		8.70	212.00
95	0.00		8.70	212.00
100	0.00		8.70	212.00
105	0.00		8.70	212.00
110	0.00		8.70	212.00
115	0.00		8.70	212.00
120	0.00		8.70	212.00
125	0.00		8.70	212.00
130	0.00		8.70	212.00
135	0.00		8.70	212.00
140	0.00		8.70	212.00
145	0.00		8.70	212.00
150	0.00		8.70	212.00
155	0.00		8.70	212.00
160	0.00		8.70	212.00
165	0.00		8.70	212.00
170	0.00		8.70	212.00
175	0.00		8.70	212.00
180	0.00		8.70	212.00
185	0.00		8.70	212.00

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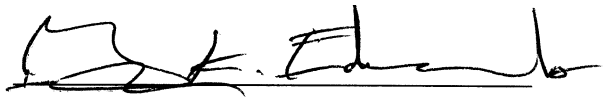
Max Available RF Power	-4.7 (dBW/4 kHz)

			Transmit 2.0 GHz	
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00		8.70	212.00
195	0.00		8.70	212.00
200	0.00		8.70	212.00
205	0.00		8.70	212.00
210	0.00		8.70	212.00
215	0.00		8.70	212.00
220	0.00		8.70	212.00
225	0.00		8.70	212.00
230	0.00		8.70	212.00
235	0.00		8.70	212.00
240	0.00		8.70	212.00
245	0.00		8.70	212.00
250	0.00		8.70	212.00
255	0.00		8.70	212.00
260	0.00		8.70	212.00
265	0.00		8.70	212.00
270	0.00		8.70	212.00
275	0.00		8.70	212.00
280	0.00		8.70	212.00
285	0.00		8.70	212.00
290	0.00		8.70	212.00
295	0.00		8.70	212.00
300	0.00		8.70	212.00
305	0.00		8.70	212.00
310	0.00		8.70	212.00
315	0.00		8.70	212.00
320	0.00		8.70	212.00
325	0.00		8.70	212.00
330	0.00		8.70	212.00
335	0.00		8.70	212.00
340	0.00		8.70	212.00
345	0.00		8.70	212.00
350	0.00		8.70	212.00
355	0.00		8.70	212.00

5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: _ 

Gary K. Edwards
Senior Manager
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: September 13, 2013