

EXHIBIT A
HNS License Sub, LLC
Amendment to
Modification of License Application
File No. SES-MFS-20110912-01065
September 2011

NARRATIVE STATEMENT

HNS License Sub, LLC (“Hughes”) hereby amends its application in File No. SES-MFS-20110912-01065 to add one new 9.2m TT&C antenna and three new 1.8m beacon uplink antennas that will be used for beam pointing purposes to its Ka-band transmit/receive earth station license in Castle Rock, CO.

Hughes modifies and corrects the point of communication information on the Schedule B for all new antennas to remove reference to SPACEWAY 3/UKSAT-10. Hughes emphasizes that the point of communication of SPACEWAY 3/USASAT 700 remains accurate for the existing antenna on this license.

Next, Hughes provides a coordination report from Comsearch for the proposed new 9.2m antenna that was inadvertently omitted from the application. See Attachment to this Exhibit A.

Hughes also corrects the frequency coordination information provided in the Schedule B for the maximum EIRP density toward the horizon for the 9.2 meter antenna to specify a lower figure.

Finally, Hughes provides updated information in the frequency coordination section of the Schedule B for the three proposed beacon antennas. These are transmit-only antennas, and will use the 29.998 GHz frequency, and thus do not require coordination with fixed service stations.

All other information in the application is unchanged by this amendment (including information resubmitted in the Schedule B to enable the application on IBFS to be validated).

ATTACHMENT



COMSEARCH
A CommScope Company

July 27, 2011

Re: HUGHES NETWORK SYSTEMS LIMITED
CASTLE ROCK, CO
Ka-Band Transmit-Receive Earth Station
Job Number: 110727COMSGE08

Dear Frequency Coordinator:

This notice is being provided in accordance with Section 25.203(c) of the FCC Rules and Regulations. We are forwarding the attached coordination data on behalf of HUGHES NETWORK SYSTEMS LIMITED, 11717 Exploration Lane Germantown, MD 20876 for a Ka-Band Transmit-Receive Earth Station to be located in CASTLE ROCK, CO.

The coordination notice is being circulated to the owners (or their protection agents) of all existing or proposed terrestrial facilities operating in a shared frequency band within the coordination contours of the proposed station(s).

We respectfully request that you examine this data for its interference potential with your system(s). In the event that your analysis identifies potential interference cases that have not been resolved, please contact us by August 31, 2011.

If there are any questions concerning this coordination notice, please contact Comsearch.

Sincerely,

COMSEARCH

Gary K. Edwards
Senior Manager
gedwards@comsearch.com

Enclosure(s)

Date: 07/27/2011
Job Number: <PCNJobCode>

Administrative Information

Status ENGINEER PROPOSAL
Call Sign <PCNCallSign>
Licensee Code HUNESY
Licensee Name HUGHES NETWORK SYSTEMS LIMITED

Site Information **CASTLE ROCK, CO**

Venue Name
Latitude (NAD 83) 39° 16' 35.0" N
Longitude (NAD 83) 104° 48' 30.0" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 2096.2 m / 6877.3 ft

Link Information

Satellite Type Geostationary
Mode TR - Transmit-Receive
Modulation Digital
Satellite Arc 80°W to 120° West Longitude
Azimuth Range 143.9° to 203.2°
Corresponding Elevation Angles 37.8° / 41.9°
Antenna Centerline (AGL) 5.49 m / 18.0 ft

Antenna Information

Manufacturer
Model
Gain / Diameter
3-dB / 15-dB Beamwidth

Receive - FCC32

FCC REFERENCE
32-25LOG(THETA)
63.2 dBi / 9.2 m
0.12° / 0.29°

Transmit - FCC32

FCC REFERENCE
32-25LOG(THETA)
66.3 dBi / 9.2 m
0.07° / 0.14°

Max Available RF Power (dBW/4 kHz)
(dBW/MHz)

-0.3
23.7

Maximum EIRP (dBW/4 kHz)
(dBW/MHz)

66.0
90.0

Interference Objectives: Long Term
Short Term

-156.0 dBW/MHz 20%
-146.0 dBW/MHz 0.01%

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

Frequency Information

Emission / Frequency Range (MHz)

Receive 18.0 GHz

70K0G7W - 200KG7W / 19700.25 - 19700.5
300KG7W / 19700.25 - 19700.5
NON / 20199.5 - 20199.5

Transmit 28.0 GHz

1M00F2D / 28351.0 - 28353.0

Max Great Circle Coordination Distance
Precipitation Scatter Contour Radius

140.5 km / 87.3 mi
100.0 km / 62.1 mi

133.5 km / 82.9 mi
100.0 km / 62.1 mi

Coordination Values		CASTLE ROCK, CO			
Licensee Name		HUGHES NETWORK SYSTEMS LIMITED			
Latitude (NAD 83)		39° 16' 35.0" N			
Longitude (NAD 83)		104° 48' 30.0" W			
Ground Elevation (AMSL)		2096.2 m / 6877.3 ft			
Antenna Centerline (AGL)		5.49 m / 18.0 ft			
Antenna Model		FCC Reference 32-25LOG(THETA)			
Antenna Mode		Receive 18.0 GHz		Transmit 28.0 GHz	
Interference Objectives: Long Term		-156.0 dBW/MHz	20%	-151.0 dBW/4 kHz	20%
Short Term		-146.0 dBW/MHz	0.01%	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power		-0.3 (dBW/4 kHz)			

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 28.0 GHz		Coordination Distance (km)
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)	
0	3.18	131.67	-10.00	100.00	-10.00	100.00	100.00
5	3.18	128.31	-10.00	100.00	-10.00	100.00	100.00
10	3.28	124.83	-10.00	100.00	-10.00	100.00	100.00
15	3.28	121.14	-10.00	100.00	-10.00	100.00	100.00
20	3.49	117.41	-10.00	100.00	-10.00	100.00	100.00
25	3.66	113.56	-10.00	100.00	-10.00	100.00	100.00
30	3.23	109.47	-10.00	100.00	-10.00	100.00	100.00
35	2.50	105.31	-10.00	100.00	-10.00	100.00	100.00
40	2.37	101.27	-10.00	100.00	-10.00	100.00	100.00
45	2.19	97.20	-10.00	100.00	-10.00	100.00	100.00
50	1.81	93.13	-10.00	100.00	-10.00	100.00	100.00
55	1.21	89.09	-10.00	100.00	-10.00	100.00	100.00
60	0.94	85.09	-10.00	100.00	-10.00	100.00	100.00
65	0.23	81.19	-10.00	133.91	-10.00	127.44	127.44
70	0.00	77.31	-10.00	136.18	-10.00	129.55	129.55
75	0.00	73.44	-10.00	136.18	-10.00	129.55	129.55
80	0.00	69.63	-10.00	136.18	-10.00	129.55	129.55
85	0.00	65.88	-10.00	136.18	-10.00	129.55	129.55
90	0.00	62.22	-10.00	136.18	-10.00	129.55	129.55
95	0.00	58.67	-10.00	136.18	-10.00	129.55	129.55
100	0.00	55.26	-10.00	136.18	-10.00	129.55	129.55
105	0.00	52.02	-10.00	136.18	-10.00	129.55	129.55
110	0.00	48.98	-10.00	136.18	-10.00	129.55	129.55
115	0.00	46.20	-9.62	137.24	-9.62	130.53	130.53
120	0.30	43.47	-8.95	130.64	-8.95	125.25	125.25
125	0.00	41.59	-8.47	140.45	-8.47	133.49	133.49
130	0.46	39.45	-7.90	122.06	-7.90	116.16	116.16
135	0.35	38.32	-7.58	130.92	-7.58	125.48	125.48
140	0.37	37.58	-7.37	129.70	-7.37	124.31	124.31
145	0.42	37.38	-7.31	127.20	-7.31	121.17	121.17
150	0.58	37.63	-7.39	117.35	-7.39	111.41	111.41
155	0.75	38.44	-7.62	109.74	-7.62	103.67	103.67
160	0.85	39.84	-8.01	104.53	-8.01	100.00	100.00
165	0.96	41.37	-8.42	100.00	-8.42	100.00	100.00
170	0.82	42.72	-8.77	103.61	-8.77	100.00	100.00
175	0.83	43.46	-8.95	102.89	-8.95	100.00	100.00
180	0.79	43.74	-9.02	104.20	-9.02	100.00	100.00
185	0.70	43.58	-8.98	108.08	-8.98	102.02	102.02

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Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Receive 18.0 GHz		Transmit 28.0 GHz		Coordination Distance (km)
			Horizon Gain (dBi)	Coordination Distance (km)	Horizon Gain (dBi)	Coordination Distance (km)	
190	1.29	42.27	-8.65	100.00	-8.65	100.00	
195	0.68	41.86	-8.54	110.13	-8.54	104.13	
200	1.24	40.74	-8.25	100.00	-8.25	100.00	
205	1.43	40.47	-8.18	100.00	-8.18	100.00	
210	1.45	40.89	-8.29	100.00	-8.29	100.00	
215	1.34	41.92	-8.56	100.00	-8.56	100.00	
220	1.84	42.86	-8.80	100.00	-8.80	100.00	
225	2.26	44.32	-9.17	100.00	-9.17	100.00	
230	2.48	46.38	-9.66	100.00	-9.66	100.00	
235	2.41	48.99	-10.00	100.00	-10.00	100.00	
240	2.55	51.72	-10.00	100.00	-10.00	100.00	
245	2.66	54.71	-10.00	100.00	-10.00	100.00	
250	2.77	57.90	-10.00	100.00	-10.00	100.00	
255	2.81	61.29	-10.00	100.00	-10.00	100.00	
260	2.84	64.82	-10.00	100.00	-10.00	100.00	
265	2.86	68.45	-10.00	100.00	-10.00	100.00	
270	2.98	72.13	-10.00	100.00	-10.00	100.00	
275	3.13	75.89	-10.00	100.00	-10.00	100.00	
280	3.97	79.61	-10.00	100.00	-10.00	100.00	
285	3.88	83.54	-10.00	100.00	-10.00	100.00	
290	3.82	87.47	-10.00	100.00	-10.00	100.00	
295	3.92	91.41	-10.00	100.00	-10.00	100.00	
300	4.31	95.38	-10.00	100.00	-10.00	100.00	
305	3.90	99.27	-10.00	100.00	-10.00	100.00	
310	3.78	103.14	-10.00	100.00	-10.00	100.00	
315	3.53	106.92	-10.00	100.00	-10.00	100.00	
320	4.00	110.84	-10.00	100.00	-10.00	100.00	
325	4.78	114.85	-10.00	100.00	-10.00	100.00	
330	4.76	118.53	-10.00	100.00	-10.00	100.00	
335	4.68	122.06	-10.00	100.00	-10.00	100.00	
340	4.62	125.46	-10.00	100.00	-10.00	100.00	
345	4.21	128.46	-10.00	100.00	-10.00	100.00	
350	4.01	131.34	-10.00	100.00	-10.00	100.00	
355	3.57	133.75	-10.00	100.00	-10.00	100.00	