### **REQUEST FOR SPECIAL TEMPORARY AUTHORITY**

SES Americom, Inc. ("SES") hereby requests special temporary authority ("STA") for a period of four days beginning December 6, 2011 to permit use of a C-band 2.4 meter temporary-fixed earth station communicating with the NSS-806 satellite at 40.5° W.L. for demonstration of a disaster and humanitarian relief program at the United Nations headquarters.

SES is a partner in a Luxembourg government-sponsored UN disaster and humanitarian relief program called "emergency.lu." Under this program, SES, together with other partners, will provide fast response support for humanitarian disaster relief organizations. SES is supplying a satellite-based communications infrastructure including satellite capacity and services that will ensure the availability of quick and reliable data and voice communications in disaster relief theaters.<sup>1</sup> Official launch of the emergency.lu program is scheduled for December 7, 2011 at the UN Headquarters in New York City, and part of the launch event will include a demonstration of the system in operation.

The antenna that will be deployed at the UN is a 2.4 meter, inflatable "beach ball" antenna manufactured by GATR Technologies. The Commission has previously issued regular authority for operation of this antenna as a temporary-fixed earth station in the conventional C-band under a license issued to GATR, call sign E090054.<sup>2</sup> The technical information filed with the GATR Application includes antenna radiation patterns and a showing regarding compliance with Sections 25.209 and 25.220 of the Commission's rules<sup>3</sup> as well as a radiation hazard analysis.<sup>4</sup> SES incorporates those materials by reference herein. SES will be operating at lower power levels than those authorized under call sign E090054 and will therefore comply with the off-axis EIRP density requirements of the Commission's rules. As noted above, the demonstration will use capacity on NSS-806, a Netherlands-licensed satellite that is on the Commission's Permitted Space Station list for communications with U.S. earth stations at the 40.5° W.L. orbital location.<sup>5</sup>

Consistent with the requirements of Section 25.277 of the Commission's rules, SES is notifying all potentially affected co-primary terrestrial fixed licensees of the temporary operations proposed under this STA.<sup>6</sup> A copy of the notification document, which also contains

<sup>&</sup>lt;sup>1</sup> Additional information about the emergency.lu program can be found at the <u>http://emergency.lu</u> website.

<sup>&</sup>lt;sup>2</sup> See File No. SES-LIC-20090330-00381 ("GATR Application").

<sup>&</sup>lt;sup>3</sup> *See id.*, Exhibit A.

<sup>&</sup>lt;sup>4</sup> See id., Radiation Hazard Analysis.

<sup>&</sup>lt;sup>5</sup> See New Skies Satellites, N.V., Order, DA 01-513, 16 FCC Rcd. 7482 (Sat. Div., rel. Mar. 29, 2001).

<sup>&</sup>lt;sup>6</sup> The proposed demonstration site is also located in close proximity to another 2.4 meter C-band antenna that has already been coordinated with terrestrial licensees for the relevant portion of the satellite arc. *See* HNS License Sub, LLC, File No. SES-MOD-20090518-00602 (Call Sign E040436), granted Oct. 14, 2009, at Exhibit C (coordination report for earth station located at UN Plaza in New York, NY for operations in the conventional C-band with satellites in the arc

full technical data regarding the planned demonstration operations, is attached hereto. The following SES personnel will be conducting the demonstration and can be contacted in the event any issues arise during the proposed operations:

Jean-Damien Leclercq:	+352 621 194 863
Alan Kuresevic:	+352 691 711 133

Grant of the requested STA will serve the public interest by allowing SES to evaluate and demonstrate the ability of the emergency.lu satellite communications platform to supply quick-response connectivity and support humanitarian disaster relief efforts.

between  $18^{\circ}$  W.L. and  $58^{\circ}$  W.L.). The power levels of the operations proposed in the instant STA will be lower than the power levels coordinated for the HNS antenna.

19700 Janelia Farm Boulevard

(703) 726-5500

Ashburn, VA 20147

Fax (703) 726-5600 COMSEARCH\* http://www.comsearch.com

November 23, 2011

#### \*\*\*\*\* \*\*\* CLIENT COPY \*\*\*

\*\*\* PLEASE MAIL \*\*\* \*\*\* TO CUSTOMER \*\*\*

Re: SES Americom, Inc. New York City, New York Temporary Transmit/Receive Earth Station Operation Dates: 12/06/2011 - 12/09/2011 Job Number: 111123COMSJC01

Dear Frequency Coordinator:

On behalf of SES Americom, Inc., we are forwarding the attached coordination data for temporary operations from a transmit/receive earth station to be located at the site referenced above.

This earth station will transmit only on the satellite(s) and frequency or frequencies as described in the attached data. Our client will accept any potential cases at 4 GHz, and please do not report cases involving non-active paths or frequencies outside the specified range.

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

Sincerely,

COMSEARCH

Jeffrey E. Cowles Engineer III, Telecommunications jcowles@comsearch.com

Enclosure(s)

## COMSEARCH

Earth Station Data Sheet 19700 Janelia Farm Boulevard, Ashburn, VA 20147 (703)726-5660 http://www.comsearch.com

Date: Job Number:		11/23 1111:	3/2011 23COMSJC01				
Administrative Info Status Call Sign Licensee Code Licensee Name	rmation	Ition TEMPORARY (Operation from 12/06/2011 to 12/09/2011) TEMP12 P3210 SES Americom, Inc.					
Site Information Venue Name Latitude (NAD 83) Longitude (NAD 83) Climate Zone Rain Zone Ground Elevation (AMS	SL)	<b>NEW</b> 40° 48 73° 57 A 2 9.45 m	<b>YORK CITY, NEV</b> 5' 3.3" N 7' 56.4" W n / 31.0 ft	W YORK			
Link InformationSatellite TypeGModeTModulationDSatellite Arc4Azimuth Range1Corresponding Elevation Angles3Antenna Centerline (AGL)3		Geost TR - T Digital 40° W 134.1° 31.5° 3.05 n	Geostationary TR - Transmit-Receive Digital 40° W to 41° West Longitude 134.1° to 135.2° 31.5° / 32.1° 3.05 m / 10.0 ft				
Antenna Informatio Manufacturer Model Gain / Diameter 3-dB / 15-dB Beamwidt	<b>n</b> h		Receive GATR Technologie 2.4 Meter 37.4 dBi / 2.4 m 2.30° / 4.20°	98	<b>Transmit</b> GATR Technologies 2.4 Meter 41.5 dBi / 2.4 m 1.45° / 2.70°	- Faitheannannann	
Max Available RF Power	(dBW/4 k (dBW/M⊦	Hz) Iz)			-19.2 4.8		
Maximum EIRP	(dBW/4 k (dBW/M⊢	Hz) Iz)			22.3 46.3		
Interference Objectives:	Long Term Short Term		-156.0 dBW/MHz -146.0 dBW/MHz	20% 0.01%	-154.0 dBW/4 kHz -131.0 dBW/4 kHz	20% 0.0025%	
Frequency Information Emission / Frequency Range (MHz)			<b>Receive 4.0 GHz</b> 2M00G7D / 3989.9544		Transmit 6.1 GHz 2M00G7D / 6216.9222		
Max Great Circle Coordination Distance Precipitation Scatter Contour Radius		316.4 km / 196.6 mi 488.1 km / 303.2 mi		i	131.1 km / 81.4 mi 100.0 km / 62.1 mi		

### COMSEARCH Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147

(703)726-5660 http://www.comsearch.com

Coordinatio	on Values	NEW YORK CITY.	NY					
Licensee Name		SES Americom. Inc.	SES Americom. Inc.					
Latitude (NAD 83)		40° 45' 3.3" N						
Longitude (N	AD 83)	73° 57' 56.4" W						
Ground Eleva	ation (ÁMSL)	9.45 m / 31.0 ft						
Antenna Cen	terline (AGL)	3.05 m / 10.0 ft	7					
Antenna Mod	lei	GATR Technologies	2.4 Meter					
Antenna Mod	e	Receive 4.0 G	Hz	Transmit	6.1 GHz			
Interference (	<b>Objectives: Long T</b>	erm -156.0 dBW/M	m -156.0 dBW/MHz 20%		W/4 kHz 2	20%		
	Short T	erm -146.0 dBW/M	m -146.0 dBW/MHz 0.01%		W/4 kHz (	0.0025%		
Max Availab	Max Available RF Power -19.2 (dBW/4 kHz)							
			Receive		Transr	smit 6.1 GHz		
	Horizon	Antenna	Horizon	Coordination	Horizon	Coordination		
Azimuth (°)	Elevation (°)	Discrimination (°)	Gain (dBi)	Distance (km)	Gain (dBi)	Distance (km)		
0	0.35	126.55	-10.00	266.35	-10.00	106.73		
5	0.38	122.67	-10.00	262.86	-10.00	104.38		
10	0.39	118.68	-10.00	262.08	-10.00	103.85		
15	0.30	114.58	-10.00	272.87	-10.00	111.06		
20	0.23	110.42	-10.00	281.84	-10.00	116.91		
25	0.00	106.20	-10.00	285.28	-10.00	119.13		
30	0.00	101.99	-10.00	285.28	-10.00	119.13		
35	0.00	97.75	-10.00	285.28	-10.00	119.13		
40	0.00	93.50	-10.00	285.28	-10.00	119.13		
45	0.00	89.23	-10.00	285.28	-10.00	119.13		
50	0.00	84.97	-10.00	285.28	-10.00	119.13		
55	0.00	80.72	-10.00	285.28	-10.00	119.13		
60	0.00	76.50	-10.00	285.28	-10.00	119.13		
65	0.00	72.30	-10.00	285.28	-10.00	119.13		
70	0.00	68.14	-10.00	285.28	-10.00	119.13		
75	0.00	64.04	-10.00	285.28	-10.00	119.13		
80	0.00	60.01	-10.00	285.28	-10.00	119.13		
85	0.00	56.07	-10.00	285.28	-10.00	119.13		
90	0.00	52.25	-10.00	285.28	-10.00	119.13		
95	0.20	48.47	-10.00	285.20	-10.00	119.07		
100	0.24	44.95	-9.32	284.70	-9.32	117.71		
105	0.26	41.68	-8.50	287.42	-8.50	118.18		
110	0.22	38.74	-7.70	297.52	-7.70	123.36		
115	0.22	36.16	-6.95	302.99	-6.95	125 59		

-6.28

-5.86

-5.55

-5.47

-5.63

-6.02

-6.58

-7.25

-7.98

-8.76

-9.55

-10.00

-10.00

-10.00

299.93

313.64

315.82

316.37

315.21

311.88

307.97

303.36

298.44

293.29

288.14

285.28

285.28

285.28

-6.28

-5.86

-5.55

-5.47

-5.63

-6.02

-6.58

-7.25

-7.98

-8.76

-9.55

-10.00

-10.00

-10.00

122.54

130.02

130.84

131.05

130.61

129.59

128.09

126.31

124.39

122.35

120.29

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119.13

119.13

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31.53

32.01

33.16

34.93

37.16

39.75

42.69

45.93

49.41

53.06

56.86

# COMSEARCH

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Longitude (NAD 83)	73° 57' 56.4" W			
Ground Elevation (AMSL)	9.45 m / 31.0 ft			
Antenna Centerline (AGL)	3.05 m / 10.0 ft			
Antenna Model	GATR Technologies 2.4 M	leter		
Antenna Mode	Receive 4.0 GHz		Transmit 6.1 GHz	
Interference Objectives: Long Terr	m -156.0 dBW/MHz	20%	-154.0 dBW/4 kHz	20%
Short Ter	m -146.0 dBW/MHz	0.01%	-131.0 dBW/4 kHz	0.0025%
Max Available RF Power			-19.2 (dBW/4 kHz)	

			Receive 4.0 GHz		Transmit 6.1 GHz	
	Horizon	Antenna	Horizon	Coordination	Horizon	Coordination
Azimuth (°)	Elevation (°)	Discrimination (°)	Gain (dBi)	Distance (km)	Gain (dBi)	Distance (km)
190	0.00	60.78	-10.00	285.28	-10.00	119.13
195	0.00	64.79	-10.00	285.28	-10.00	119.13
200	0.00	68.87	-10.00	285.28	-10.00	119.13
205	0.00	73.00	-10.00	285.28	-10.00	119.13
210	0.00	77.18	-10.00	285.28	-10.00	119.13
215	0.00	81.38	-10.00	285.28	-10.00	119.13
220	0.00	85.61	-10.00	285.28	-10.00	119.13
225	0.00	89.84	-10.00	285.28	-10.00	119.13
230	0.00	94.07	-10.00	285.28	-10.00	119.13
235	0.00	98.30	-10.00	285.28	-10.00	119.13
240	0.61	102.59	-10.00	242.91	-10.00	100.00
245	1.00	106.87	-10.00	220.35	-10.00	100.00
250	0.96	111.05	-10.00	222.50	-10.00	100.00
255	0.81	115.14	-10.00	230.76	-10.00	100.00
260	0.69	119.16	-10.00	237.92	-10.00	100.00
265	0.81	123.17	-10.00	230.77	-10.00	100.00
270	0.78	127.02	-10.00	232.32	-10.00	100.00
275	0.73	130.71	-10.00	235.50	-10.00	100.00
280	0.67	134.22	-10.00	238.75	-10.00	100.00
285	0.51	137.42	-10.00	248.92	-10.00	100.00
290	0.44	140.37	-10.00	256.67	-10.00	100.16
295	0.44	143.02	-10.00	256.09	-10.00	100.00
300	0.44	145.23	-10.00	256.30	-10.00	100.00
305	0.41	146.87	-10.00	260.01	-10.00	102.45
310	0.39	147.91	-10.00	261.90	-10.00	103.73
315	0.44	148.33	-10.00	256.77	-10.00	100.23
320	0.58	148.15	-10.00	244.74	-10.00	100.00
325	0.52	147.07	-10.00	248.74	-10.00	100.00
330	0.46	145.39	-10.00	253.92	-10.00	100.00
335	0.46	143.16	-10.00	254.09	-10.00	100.00
340	0.48	140.43	-10.00	251.67	-10.00	100.00
345	0.46	137.31	-10.00	254.08	-10.00	100.00
350	0.42	133.92	-10.00	258.29	-10.00	101.27
355	0.41	130.33	-10.00	260.36	-10.00	102.68