Sirius Satellite Radio Inc.

Approved by OMB 3060-0678

Date & Time Filed: Dec 13 2007 11:39:43:363AM File Number: SAT-STA-20071213-00174

Callsign:

FEDERAL COMMUNICATIONS COMMISSION APPLICATION FOR SPACE STATION SPECIAL TEMPORARY AUTHORITY

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APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu:

Request for Modification of SDARS Terrestrial Repeater STA – 15 New Low Power Repeaters

1. Applicant

Name: Sirius S

Sirius Satellite Radio Inc. Phone Number:

212-584-5100

DBA Name:

Fax Number:

212-584-5353

Street: 12

1221 Avenue of the Americas

E-Mail:

36th Floor

City:

New York

State:

NY

Country:

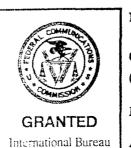
USA

Zipcode:

10020

Attention:

Mr. Patrick L. Donnelly



File#	5AT-8TA-20071213-0017

Call Sign Grant Date 2 4 08
(or other identifier)

Term Dates

From 2 4 08

To: + 180day 5

Approved:

W/coalthor.

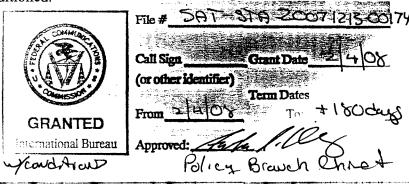
Policy Browen Chrost

Application of Sirius Satellite Radio Inc. for Special Temporary Authority IBFS File No. SAT-STA-20071213-00174

Special temporary authority (STA) IS GRANTED to Sirius Satellite Radio Inc. (Sirius) to operate 15 terrestrial repeaters at power levels at or below 2 kW EIRP for a period of 180 days, at various locations in B altimore, MD, Chicago, IL, Cincinnati, OH, Miami, FL, New York, NY, Bogota, NJ, Wayne, NJ, Philadelphia, PA, Sacramento, CA, and Washington, DC, as set forth in the exhibit attached to its application, with the technical parameters specified in its application, and subject to the following conditions:

- 1. Any actions taken as a result of this STA are solely at the applicant's own risk. This STA shall not prejudice the outcome of the final rules adopted by the Commission in IB Docket No. 95-91. The issue concerning EIRP raised by the WCS Coalition will be addressed in that proceeding. Operations prior to such action will be subject to condition 2 below.
- 2. Operation of all SDARS repeaters authorized pursuant to this STA is on a non-interference basis with respect to all permanently authorized radiocommunication facilities. Sirius shall provide the information and follow the process set forth in paragraphs 14 and 17 in 16 FCC Rcd 16773 (Int'l Bur. 2001) and 16 FCC Rcd 16781 (Int'l Bur. 2001), as modified by 16 FCC Rcd 18481 (Int'l Bur. 2001) and 16 FCC Rcd 18484 (Int'l Bur. 2001).
- 3. SDARS repeaters are restricted to the simultaneous retransmission of the complete programming, and only that programming, transmitted by the satellite directly to SDARS subscriber's receivers.
- 4. Coordination of SDARS repeater operations shall be completed with all affected Administrations prior to operation, in accordance with all applicable international agreements including those with Canada and Mexico.
- 5. SDARS repeaters shall comply with Part 17 of the Commission's rules Construction, Marking, and Lighting of Antenna Structures.
- 6. SDARS repeaters shall comply with Part 1 of the Commission's rules, Subpart I Procedures Implementing the National Environmental Policy Act of 1969, including the guidelines for human exposure to radio frequency electromagnetic fields as defined in Sections 1.1307(b) and 1.1310 of the Commission's rules.
- 7. SDARS repeater out-of-band emissions shall be limited to 75+log(EIRP) dB less than the transmitter EIRP.
- 8. This STA expires after 180 days, or on the date on which permanent rules governing repeater operations become effective, whichever occurs first.

9. Sirius is granted 30 days from the date of the release of this authorization to decline the authorization as conditioned. Failure to respond within that period will constitute formal acceptance of the authorization as conditioned.



3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request	2. Contact				
Street: 1221 Avenue of the Americas E-Mail: 36th Floor City: New York State: NY Country: USA Zipcode: 10020 - Attention: Relationship: Same (If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.) 3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request	Name:	Mr. Patrick L. Donnelly	Phone Number:	212-584-5100	
City: New York State: NY Country: USA Zipcode: 10020 - Attention: Relationship: Same (If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.) 3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request	Company	: Sirius Satellite Radio Inc.	Fax Number:	212-584-5353	
City: New York State: NY Country: USA Zipcode: 10020 - Attention: Relationship: Same (If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.) 3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request	Street:	1221 Avenue of the Americas	E-Mail:		
Country: USA Zipcode: 10020 - Attention: Relationship: Same (If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.) 3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request		36th Floor			
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(If your application is related to an application filed with the Commission, enter either the file number or the IB Submission ID of the related application. Please enter only one.) 3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request	Country:	USA	Zipcode:	10020 -	
application. Please enter only one.) 3. Reference File Number SATSTA2005030100053 or Submission ID 4a. Is a fee submitted with this application? If Yes, complete and attach FCC Form 159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114). Governmental Entity Noncommercial educational licensee Other(please explain): 4b. Fee Classification CXW – Space Station (Non–Geostationary) 5. Type Request	Attention	:	Relationship:	Same	
4b. Fee Classification CXW - Space Station (Non-Geostationary) 5. Type Request	O Governmental En	tity Noncommercial education		n (see 47 C.F.R.Section 1.1114).	
5. Type Request		· · · · · · · · · · · · · · · · · · ·	tationary)		
↑ Change Station Location ↑ Extend Expiration Date ♠ Other		Space Station (non-eeoc			
	Change Station L	ocation	nd Expiration Date	Other	
6. Temporary Orbit Location 7. Requested Extended Expiration Date	6. Temporary Orbit Lo	ocation	7. Requested Ex	tended Expiration Date	

8. Description (If the complete description	does not appear in this b	pox, please go to the end of the form to view it in its entirety.)
L.	_	s a modification of its Special Temporary e digital audio radio service terrestrial
to a denial of Federal benefits that includes I 21 U.S.C. Section 862, because of a convicti 1.2002(b) for the meaning of "party to	FCC benefits pursuant to ion for possession or dist	
10. Name of Person Signing Patrick L. Donnelly		11. Title of Person Signing Exec. VP, GC, and Sec'y
12. Please supply any need attachments.		
Attachment 1: Attachment & Exhibit	Attachment 2:	Attachment 3:
(U.S. Code, Title 18, Se	ection 1001), AND/OR R	RM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT EVOCATION OF ANY STATION AUTHORIZATION OR FORFEITURE (U.S. Code, Title 47, Section 503).

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THE FOREGOING NOTICE IS REQUIRED BY THE PAPERWORK REDUCTION ACT OF 1995, PUBLIC LAW 104-13, OCTOBER 1, 1995, 44 U.S.C. SECTION 3507.

Attachment

Sirius Satellite Radio Inc. ("Sirius") hereby requests that the Federal Communications Commission ("FCC" or "Commission") modify its existing special temporary authority ("STA") to allow Sirius to operate 15 low-power satellite digital audio radio service ("satellite DARS") terrestrial repeaters as set forth in the attached Exhibit.¹

On September 17, 2001, the Commission granted Sirius an STA to operate its satellite DARS terrestrial repeater network.² Since that time, the Commission has extended the STA several times, pending the issuance of final rules governing the use of satellite DARS terrestrial repeaters.³ The FCC has also previously granted several modifications of the STA.⁴

Sirius has identified these sites as necessary to allow it to provide high quality commercial satellite DARS programming nationwide. These repeaters will operate at or below 2000 watts, a power level that has been deemed acceptable by WCS licensees. Grant of this modification will serve the public interest for the same reasons discussed in the Commission's 2001 STA Grant Order, which include the provision of "high quality radio signals to areas that have limited radio service," continuous radio coverage for individuals on long-distance trips, and "[d]iverse program formats, including educational,

Sirius hereby requests that this proceeding be designated "permit-but-disclose" for purposes of the Commission's rules governing *ex parte* communications. 47 C.F.R. §§ 1.1200(a) and 1.1206.

Sirius Satellite Radio Inc. Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, Order and Authorization, 16 FCC Rcd 16773 (Int'l Bur. 2001) ("2001 STA Grant Order").

In September of 2004, the Commission granted Sirius a new STA to operate for 180 days or until the Commission issued final rules governing the use of satellite DARS terrestrial repeaters. Sirius Satellite Radio Inc. Request to Modify Special Temporary Authority To Operate Satellite DARS Terrestrial Repeaters, Order and Authorization, 19 FCC Rcd 18140 (2004) ("2004 STA Grant Order"). Sirius timely filed an application for renewal of this STA on March 1, 2005. See File No. SAT-STA-20050301-00053. To date, the Commission has not acted on this application. Under Section 1.62(f) of the Commission's rules, the timely filed renewal tolls the expiration of the previously granted STA. 47 C.F.R. §1.62(f).

In addition to this application, Sirius currently has pending a request for modification of STA to operate 16 additional repeaters, 30-day and 180-day requests for STA to operate 11 repeaters, a 180-day request to operate a substitute repeater at a new site in Las Vegas, NV due to the destruction of the Stardust Hotel, and a request to operate four new repeaters at sites in Alaska and Hawaii. *See* IBFS File Nos. SAT-STA-20060623-00067, SAT-STA-20061013-00121, SAT-STA-20061013-00122, SAT-STA-20061107-00132, SAT-STA-20061107-00131.

See, e.g., Petition to Dismiss or Deny of BellSouth Mobile Data, Inc. and BellSouth Wireless Cable, Inc., File No. SAT-STA-20060623-00067 (filed September 18, 2006) at 6 ("BellSouth believes that terrestrial repeaters operating below 2 kW peak EIRP will not cause undue interference to its WCS operations").

ethnic and religious programming." In particular, grant of this modification will help ensure that these benefits can be experienced nationwide. The attached Exhibit provides location and technical information for each site, as well as a 7.5 minute topographical map and an aerial view of the site.

Sirius does not anticipate any in-band or out of band interference from these repeaters. As noted above, these low-power repeaters will operate at or below a power level that has been deemed acceptable by WCS licensees. In addition, WCS licensees will have an opportunity to comment on the STA during the public notice period; as a result, Sirius has not notified the WCS licensees in the affected MSAs prior to filing this request. Therefore, Sirius respectfully requests that the Commission promptly grant its proposed modifications to its STA.

Sirius understands that the operation of these repeaters is subject to the conditions placed upon that operation by the 2004 STA Grant Order. Grant of the requested modification will not alter Sirius' obligations to protect authorized radiocommunications facilities from interference. Further, the final characteristics of these and the other Sirius terrestrial repeaters remain subject to the outcome of the Commission's rulemaking proceeding.

²⁰⁰¹ STA Grant Order at 16776 (¶ 9).

EXHIBIT

Sirius Satellite Radio Site# 03-03

Table 1. Site Information

	Site#	Address	Market	Coordinates (NAD 83) Longitude (W) Latitude (N)		Antenna
ı					Latitude (N)	Height (feet)
	03-03	3420 Ellicott Center Drive, Ellicott City, MD 21043	Baltimore, MD	76-48-56.2	39-16-40.1	150

Table 2. Technical Parameters

		Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	240	0	2000	65	300	0	2000

FCC Antenna Structure Registration Number: 1039398

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Ellicott City 39076-C7-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 07-31

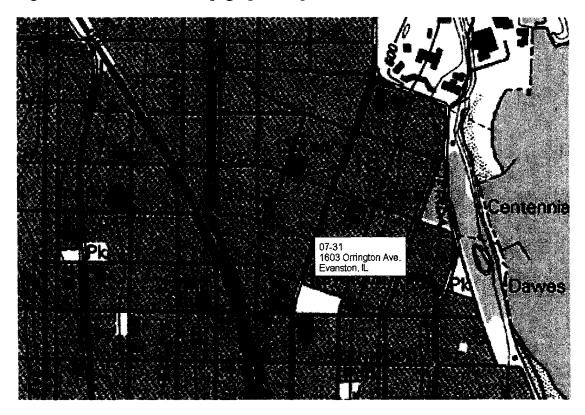
Table 1. Site Information

Site#	Address	Market -	Coordinates	Antenna	
Jiteπ			Longitude (W)	Latitude (N)	Height (feet)
07-31	1603 Orrington Ave. Evanston, IL	Chicago, IL	87-40-50.9	42-02-49.5	275

Table 2. Technical Parameters

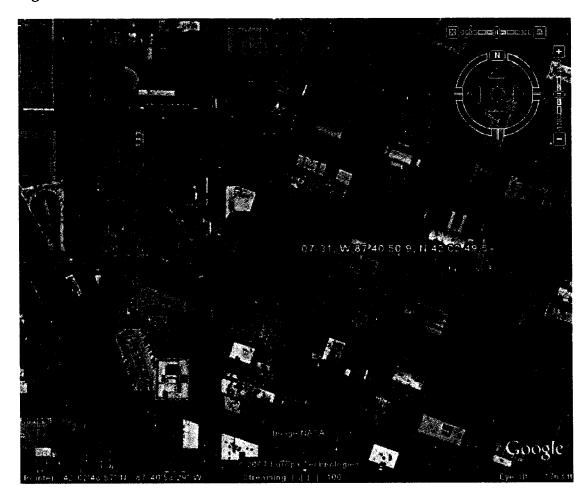
N - Of		Sector 1			Sector 2				
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	0	2	2000	65	320	2	2000

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Evanston 42087-A6-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 08-03

Table 1. Site Information

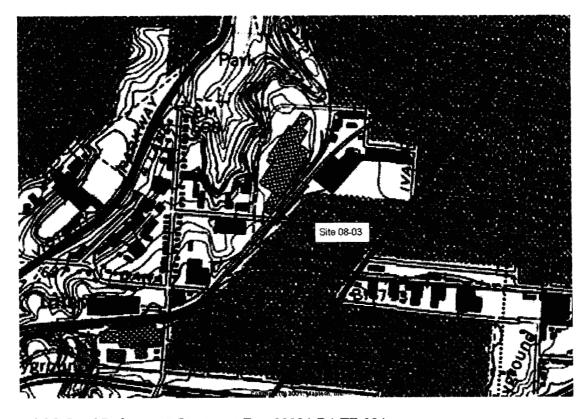
Site#	Address	Market	Coordinates Longitude (W)		Antenna Height (feet)
08-03	1710 Cleneay Avenue, Cincinnati, OH 45212	Cincinnati, OH	84-28-10.00	39-08-57.00	160

Table 2. Technical Parameters

		Sector 1				Sector 2			
No Of Setors	Antenna rype	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR90-17-00NVL	90	30	0	2000	90	120	0	2000

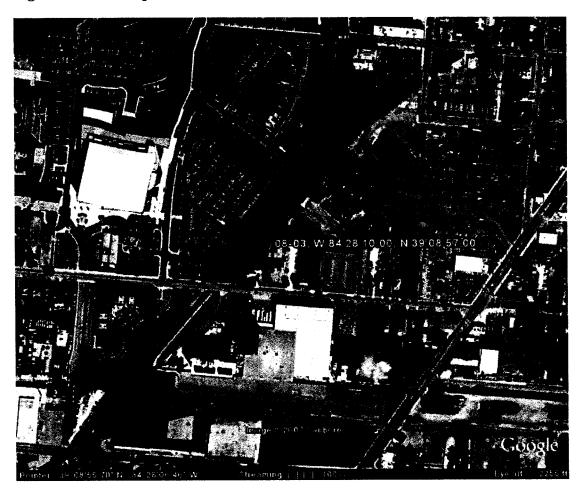
FAA Final Determination Number: 89-AGL-1872-OE

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Cincinnati East 39084-B4-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial map



Sirius Satellite Radio Site# 22-08

Table 1. Site Information

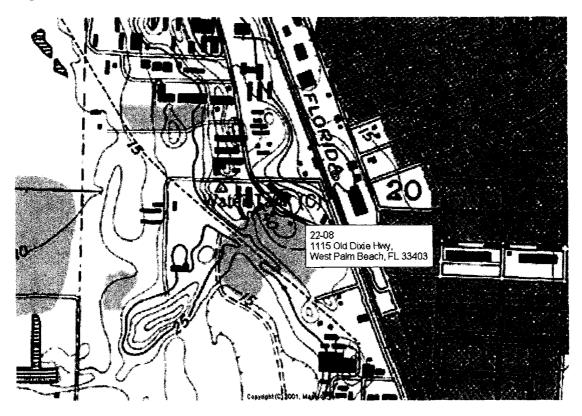
Site#	Address	Market	Coordinates	(NAD 83)	Antenna
Sile#	Audress	iviaiket	Longitude (W)	Latitude (N)	Height (feet)
22-08	1115 Old Dixie Hwy, West Palm Beach, FL 33403	Miami, FL	80-4-31.7	26-47-59.7	200

Table 2. Technical Parameters

			Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	
2	EMS FR65-18-00NVL	65	20	2	2000	65	350	2	2000	

FCC Antenna Structure Registration Number: 1020782

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Riviera Beach 26080-G1-TB-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 27-09

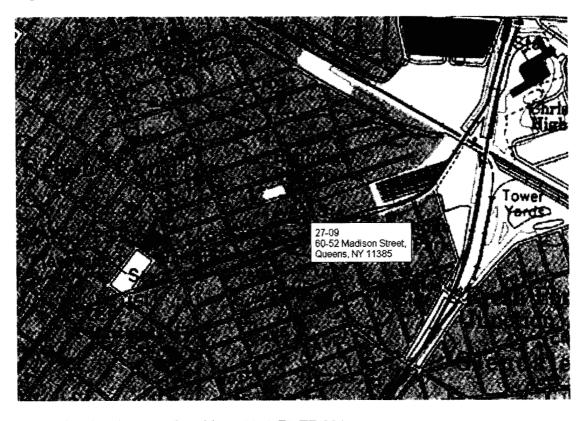
Table 1. Site Information

	Site#	Address	Market	Coordinates	Antenna	
I	Site#	Audress	iviaiket	Longitude (W)	Latitude (N)	Height (feet)
	27-09	60-52 Madison Street, Queens, NY 11385	New York, NY	73-53-51.8	40-42-24.4	64

Table 2. Technical Parameters

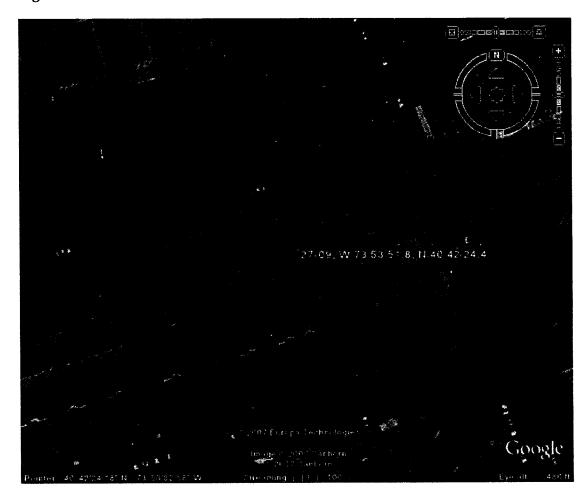
No Of			Sector 1				Sector 2			
No Of Setors	Antenna i ype	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	
2	EMS FR65-18-00NVL	65	120	2	2000	65	160	2	2000	

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Brooklyn 40073-F8-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 28-14

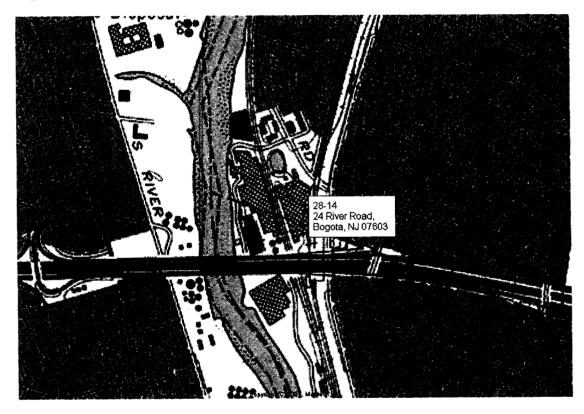
Table 1. Site Information

Γ	Site#	Address	Market	Coordinates		Antenna
	Jile#	Addicss	Warket	Longitude (W)	Latitude (N)	Height (feet)
	28-14	24 River Rd., Bogota, NJ 07603	Bogota, NJ	74-01-59.4	40-52-10.2	125

Table 2. Technical Parameters

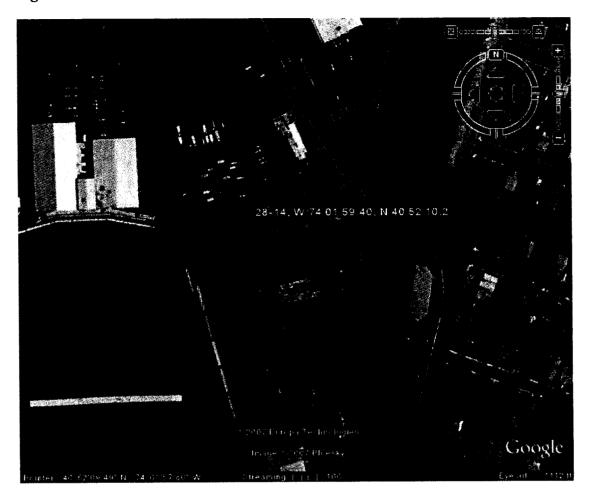
			Secto	or 1			Secto	or 2	
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	300	2	2000	65	330	2	2000

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Weehawken 40074-G1-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 28-15

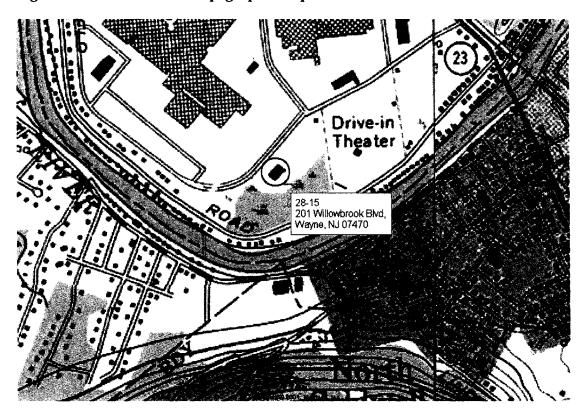
Table 1. Site Information

	Site#	Address	Market	Coordinates		Antenna
l	Jite#	Audiess	Market	Longitude (W)	Latitude (N)	Height (feet)
	2815	201 Willowbrook Blvd, Wayne, NJ 07470	Wayne, NJ	74-15-22.5	40-53-7.5	118

Table 2. Technical Parameters

			Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	
2	EMS FR65-18-00NVL	65	230	2	2000	65	280	2	2000	

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Pompton Plains 40074-H3-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 29-04

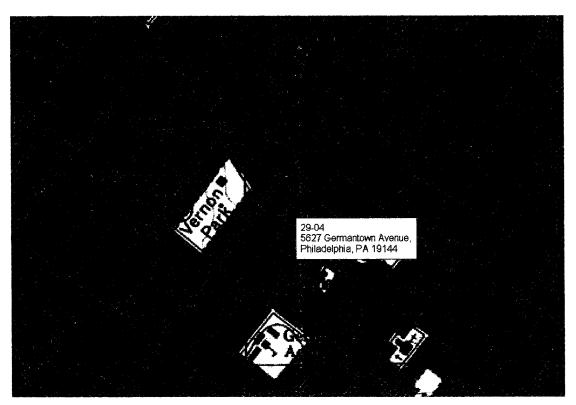
Table 1. Site Information

1	Site#	Address	Market	Coordinates	(NAD 83)	Antenna
ı	Site#	Address	iviaiket	Longitude (W)	Latitude (N)	Height (feet)
	29-04	5627 Germantown Avenue, Philadelphia, PA 19144	Philadelphia, PA	75-10-27.5	40-02-09.8	130

Table 2. Technical Parameters

N ₂	26	Sector 1				Sector 2			
No (rs Antenna Lype	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	20	2	2000	65	350	2	2000

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Germantown 40075-A2-TF-024 Datum of the survey: NAD 27



Sirius Satellite Radio Site# 29-05

Table 1. Site Information

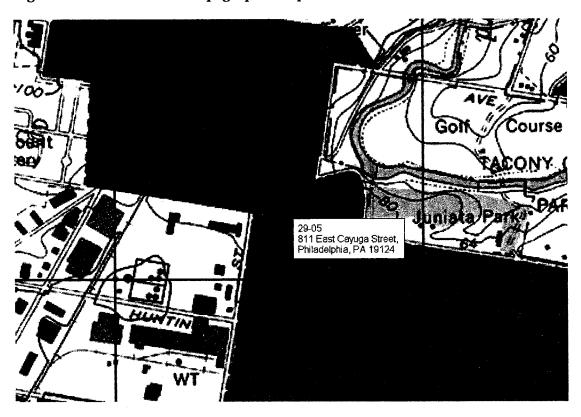
Cito#	Address	Market	Coordinates	(NAD 83)	Antenna
Site#	Address	Iviaiket	Longitude (W)	Latitude (N)	Height (feet)
29-05	811 East Cayuga Street, Philadelphia, PA 19124	Philadelphia, PA	075-06-38.0	40-00-57.0	140

Table 2. Technical Parameters

No Of		Sector 1			Sector 2				
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	20	2	2000	65	50	2	2000

FCC Antenna Structure Registration Number: 1055890

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Frankford 40075-A1-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Note: Aerial view is provided for illustrative purposes only. Sirius cannot guarantee the accuracy of the aerial view.

Sirius Satellite Radio Site# 29-06

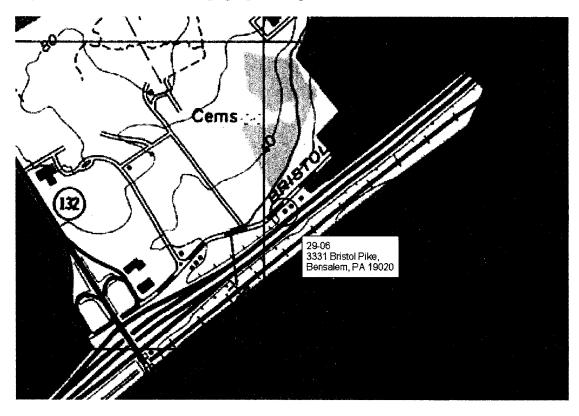
Table 1. Site Information

Ī	Site#	Address	Market	Coordinates	(NAD 83)	Antenna
Į	JIC#	Address	IVIAIRE	Longitude (W)	Latitude (N)	Height (feet)
	29-06	3331 Bristol Pike, Bensalem, PA 19020	Philadelphia, PA	74-55-43.7	40-5-14.3	138

Table 2. Technical Parameters

No Of			Sector	· 1			Secto	r 2	
Setors	i Antenna ivbe	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	20	2	2000	65	60	2	2000

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Beverly 40074-A8-TF-024 Datum of the survey: NAD 83

Figure 2. Aerial view



Sirius Satellite Radio Site# 37-03

Table 1. Site Information

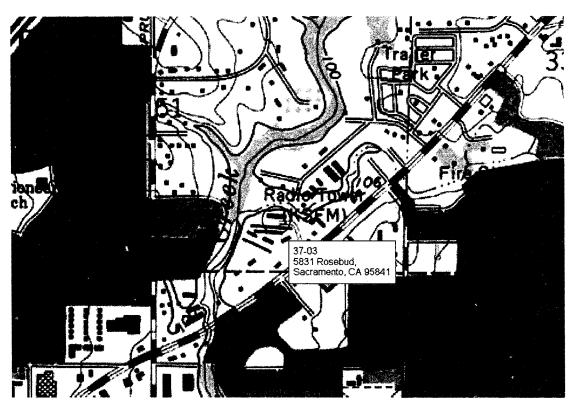
			Coordinates	Antenna	
Site#	Address	Market	Longitude (W)	Latitude (N)	Height (feet)
37-03	5831 Rosebud, Sacramento, CA 95841	Sacramento	121-19-55.1	38-40-21.1	235

Table 2. Technical Parameters

		Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	40	2	2000	65	60	2	2000

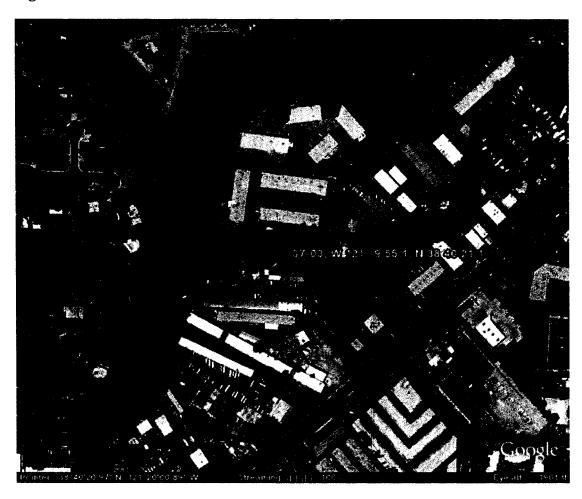
FCC Antenna Structure Registration Number: 1058155

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Citrus Heights 38121-F3-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 37-04

Table 1. Site Information

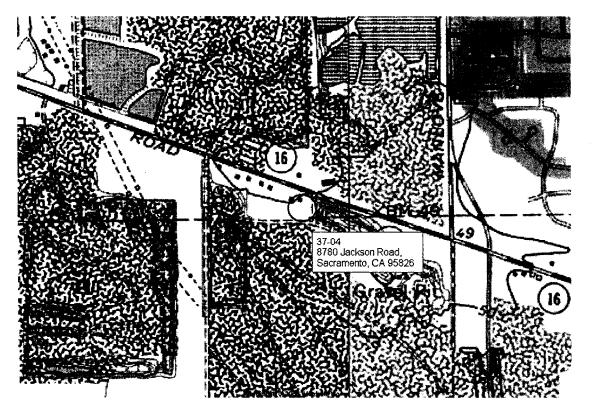
		Market	Coordinates	(NAD 83)	Antenna
Site#	Site# Address		Longitude (W)	Latitude (N)	Height (feet)
37-04	8780 Jackson Road, Sacramento, CA 95826	Sacramento, CA	121-22-39.5	38-32-23.2	140

Table 2. Technical Parameters

		Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	80	2	2000	65	100	2	2000

FCC Antenna Structure Registration Number: 1015135

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# 38121-E4-TF-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 37-05

Table 1. Site Information

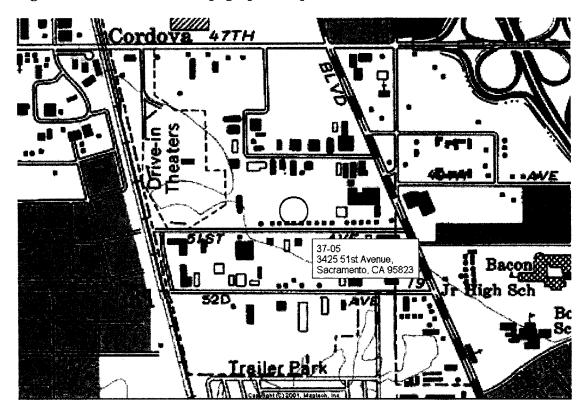
			Coordinates	(NAD 83)	Antenna
Site#	Address	Market	Longitude (W) Latitude (N)		Height (feet)
37-05	3425 51 st Avenue, Sacramento, CA 95823	Sacramento, CA	121-28-05.5	38-30-20.0	109

Table 2. Technical Parameters

		Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	160	0	2000	65	250	0	2000

FCC Antenna Structure Registration Number: 1031919

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Sacramento East 38121-E4-TF-024 Datum of the survey: NAD 27



Sirius Satellite Radio Site# 46-02

Table 1. Site Information

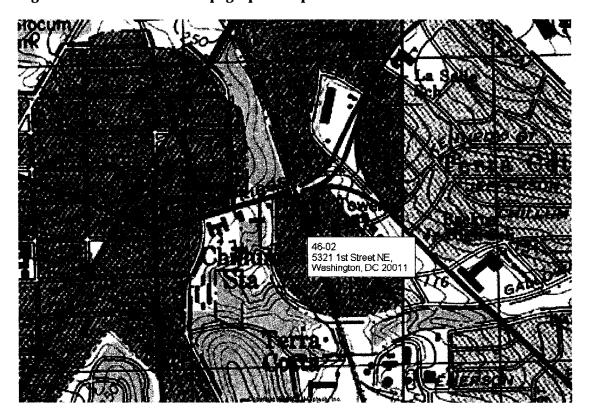
١	Site#	Address	Market	Coordinates		Antenna
l	Jiteπ	Address	Market	Longitude (W)	Latitude (N)	Height (feet)
	46-02	5321 1st Street NE, Washington, DC 20011	Washington DC	77-00-13.8	38-57-19.0	135

Table 2. Technical Parameters

		Sector 1				Sector 2			
No Of Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	10	2	2000	65	350	2	2000

FCC Antenna Structure Registration Number: 1227148

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Washington West 38077-H1-TB-024 Datum of the survey: NAD 27

Figure 2. Aerial view



Sirius Satellite Radio Site# 46-09

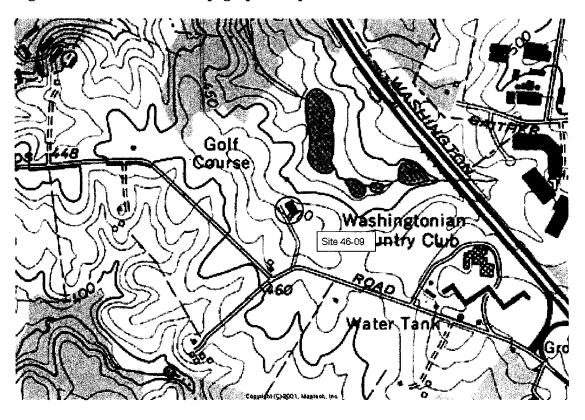
Table 1. Site Information

Site#	Address	Market	Coordinates	Antenna	
			Longitude (W)	Latitude (N)	Height (leet)
46-09	9701 Fields Road, Gaithersburg, MD 20878	Washington DC	77-11-57.9	39-06-53.5	260

Table 2. Technical Parameters

No Of		Sector 1			Sector 2				
Setors	Antenna Type	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)	Antenna Beamwidth	Orientation	Downtilt	EiRP (Watts)
2	EMS FR65-18-00NVL	65	0	0	2000	65	300	0	2000

Figure 1. USGS 7.5 minute topographic map



USGS Quad Reference# Rockville 39077-A2-TF-024 Datum of the survey: NAD 27

