Date & Time Filed: Sep 6 2011 5:18:53:723PM File Number: SES-MOD-INTR2011-04185

FCC APPLICATION FOR SPACE AND EARTH STATION:MOD OR AMD – MAIN FORM	FCC Use Only
FCC 312 MAIN FORM FOR OFFICIAL USE ONLY	

## APPLICANT INFORMATION

Enter a description of this application to identify it on the main menu: San Diego Mod App -2

	o Mou App -			
1–8. Lega	1 Name of Ap	plicant		
	Name:	LightSquared Subsidiary LLC	Phone Number:	703–390–2001
	DBA		Fax Number:	703–390–2770
	Name:			
	Street:	10802 Parkridge Blvd	E-Mail:	jeff.carlisle@lightsquared.com
		<u> </u>		
	City:	Reston	State:	VA
	City.	Reston		
	Country:	USA	Zipcode:	20191 –
	<b>Attention:</b>	Mr Jeffrey J. Carlisle		
		-		

9–16. Name of Contact Representative

Name: Bruce D. Jacobs Phone Number: 202–663–8077

**Company:** Pillsbury Winthrop Shaw Pittman **Fax Number:** 202–663–8007

LLP

Street: 2300 N Street NW E-Mail: bruce.jacobs@pillsburylaw.com

City: Washington State: DC

Country: USA Zipcode: 20037–

Attention: Bruce D. Jacobs, Esq. Relationship: Legal Counsel

**CLASSIFICATION OF FILING** 

17. Choose the button next to the classification that applies to this filing for both questions a. and b. Choose only one for 17a and only one for 17b.	(N/A) b1. Application for License of New Station (N/A) b2. Application for Registration of New Domestic Receive—Only Station b3. Amendment to a Pending Application
a1. Earth Station a2. Space Station	<ul> <li>b4. Modification of License or Registration</li> <li>b5. Assignment of License or Registration</li> <li>b6. Transfer of Control of License or Registration</li> <li>b7. Notification of Minor Modification</li> <li>(N/A) b8. Application for License of New Receive—Only Station Using Non—U.S. Licensed Satellite</li> <li>(N/A) b9. Letter of Intent to Use Non—U.S. Licensed Satellite to Provide Service in the United States</li> <li>(N/A) b10. Other (Please specify)</li> <li>(N/A) b11. Application for Earth Station to Access a Non—U.S.satellite Not Currently Authorized to Provide the Proposed Service in the Proposed Frequencies in the United States</li> <li>(N/A) b12. Application for Database Entry</li> <li>b13. Amendment to a Pending Database Entry Application</li> <li>b14. Modification of Database Entry</li> </ul>
17c. Is a fee submitted with this application of the submitted with th	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
17d.  Fee Classification CGX – Fixed Satellite T Station	Transmit/Receive Earth

18. If this filing is in reference to an existing station, enter:	19. If this filing is an amen modification please enter o		pplication enter both fields, if this filing is a
(a) Call sign of station: E100051	(a) Date pending application	n was filed:	(b) File number:
			SESMOD2011010700025
TYPE OF SERVICE			
20. NATURE OF SERVICE: This filing is fo	or an authorization to provid	e or use the following	g type(s) of service(s): Select all that apply:
a. Fixed Satellite			
b. Mobile Satellite			
c. Radiodetermination Satellite			
d. Earth Exploration Satellite			
e. Direct to Home Fixed Satellite			
f. Digital Audio Radio Service			
g. Other (please specify)			
21. STATUS: Choose the button next to the a only one.	applicable status. Choose		applicant, check all that apply.
Common Carrier Non–Common	Carrier	Using U.S. lice Using Non–U.S	S. licensed satellites
facilities:		ervice, see instruction	ons regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network	k Not connected to a	Public Switched Net	work 👩 N/A

24. I	FREQUENCY BAND(S): Place as	'X' in the box(es) next to all a	applicable frequency band(s).
		Band (12/14 GHz)	
c.	Other (Please specify upper and lo	wer frequencies in MHz.)	
1 2 2	Frequency Lower: 1525	Frequency Upper: 1544	(Please specify additional frequencies in an attachment)
ТҮРЕ	OF STATION		
25. CL	ASS OF STATION: Choose the b	atton next to the class of station	that applies. Choose only one.
O a.	Fixed Earth Station		
<b>o</b> b.	Temporary-Fixed Earth Station		
O c.	12/14 GHz VSAT Network		
O d.	Mobile Earth Station		
<b>O</b> e.	Geostationary Space Station		
O f.	Non-Geostationary Space Station		
<b>●</b> g.	Other (please specify) SCMS	earth station for MSS	
26. TY	PE OF EARTH STATION FACIL		
● Tra	ansmit/Receive	Only Receive-Only	N/A
"For S <sub>1</sub>	pace Station applications, select N	/A."	

## PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)
a — authorization to add new emission designator and related service
b — authorization to change emission designator and related service
c — authorization to increase EIRP and EIRP density
d — authorization to replace antenna
e — authorization to add antenna
f — authorization to relocate fixed station
g — authorization to change frequency(ies)
h — authorization to add frequency
i — authorization to add Points of Communication (satellites & Double
j — authorization to change Points of Communication (satellites & Double of Communication)
k — authorization for facilities for which environmental assessment and
radiation hazard reporting is required
1 — authorization to change orbit location
m — authorization to perform fleet management
n — authorization to extend milestones
o — Other (Please specify)

#### **ENVIRONMENTAL POLICY**

impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R. 1.1308 and 1.1311, as an exhibit to this application. A Radiation Hazard Study must accompany all applications for new transmitting facilities, major modifications, or major amendments.	_		~			
ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeron aeronautical fixed radio station services are not required to respond to Items 30–34.	autic	al en	ı rou	ite or		
29. Is the applicant a foreign government or the representative of any foreign government?	0	Yes	•	No		
30. Is the applicant an alien or the representative of an alien?	0	Yes	0	No	•	N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	0	No	•	N/A
32. Is the applicant a corporation of which more than one—fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	0	Yes	0	No	•	N/A

 $lackbox{ Yes } lackbox{ No}$ 

28. Would a Commission grant of any proposal in this application or amendment have a significant environmental

33. Is the applicant a corporation directly or indirectly controlled by any other corporation of which more than one–fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	O Yes O	No 👩 N/A
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit an identification of the aliens or foreign entities, their nationality, their relationship to the applicant, and the percentage of stock they own or vote.		
BASIC QUALIFICATIONS		
35. Does the Applicant request any waivers or exemptions from any of the Commission's Rules? If Yes, attach as an exhibit, copies of the requests for waivers or exceptions with supporting documents.	<b>o</b> Yes	No
36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	No

37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances.	O Yes	<b>⊚</b> No
38. Has any court finally adjudged the applicant, or any person directly or indirectly controlling the applicant, guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement or any other means or unfair methods of competition? If Yes, attach as an exhibit, an explanation of circumstances	O Yes	<b>⊚</b> No
39. Is the applicant, or any person directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If yes, attach as an exhinit, an explanation of the circumstances.	O Yes	<b>⊘</b> No
40. If the applicant is a corporation and is applying for a space station license, attach as an exhibit the names, address, and citizenship of those stockholders owning a record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of fiduciary control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer.		

41. By checking Yes, the undersigned certifies, that neither applicant nor any other party to the application is subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti–Drug Act of 1988, 21 U.S.C. Section 862, because of a conviction for possession or distribution of a controlled substance. See 47 CFR 1.2002(b) for the meaning of "party to the application" for these purposes.	Yes	O No
42a. Does the applicant intend to use a non–U.S. licensed satellite to provide service in the United States? If Yes, answer 42b and attach an exhibit providing the information specified in 47 C.F.R. 25.137, as appropriate. If No, proceed to question 43.	<b>O</b> Yes	<b>⊚</b> No
42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, we coordinated or is in the process of coordinating the space station?	vhat administr	ration has

43. Description. (Summarize the nature of the application and the services to be provided). (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Applicant's current license (E100051) authorizes the operation of five technically identical transmit/receive earth stations, at fixed locations, as part of its satellite carrier monitoring system. Applicant seeks to modify its current authorization to add a transmit/receive, fixed location, earth station. The proposed earth station will be

Attachment B

43a. Geographic Service Rule Certification By selecting A, the undersigned certifies that the applicant is not subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25.	O A
By selecting B, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will comply with such requirements.	<b>●</b> B
By selecting C, the undersigned certifies that the applicant is subject to the geographic service or geographic coverage requirements specified in 47 C.F.R. Part 25 and will not comply with such requirements because it is not feasible as a technical matter to do so, or that, while technically feasible, such services would require so many compromises in satellite design and operation as to make it economically unreasonable. A narrative description and technical analysis demonstrating this claim are attached.	<b>o</b> c

#### **CERTIFICATION**

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application. The applicant certifies that grant of this application would not cause the applicant to be in violation of the spectrum aggregation limit in 47 CFR Part 20. All statements made in exhibits are a material part hereof and are incorporated herein as if set out in full in this application. The undersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are true, complete and correct to the best of his or her knowledge and belief, and are made in good faith.

Individual		
Unincorporated Association		
Partnership		
Corporation		
Governmental Entity		
<del>Tar</del>		
Other (please specify)		
<b>-</b>		
<b>-</b>		
Other (please specify)	46. Title of Person Signing	
<b>-</b>	46. Title of Person Signing Executive Vice President, Regulatory Affairs	
Other (please specify)  45. Name of Person Signing		

## SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 – Schedule B:(Technical and Operational Description) FOR OFFICIAL USE ONLY

Location of Earth S	tation Site			
E1: Site Identifier:	SCMS 6	E5. Call Sign:		
E2: Contact Name	Dick Evans	E6. Phone Number:	703–390–2711	
E3. Street:	4600 Air Way	E7. City:	San Diego	
		E8. County:	San Diego	
E4. State	CA	E9. Zip Code	92102	
		-	J2102	
E10. Area of Opera	uion:	n/a		
E11. Latitude:	32 °43 '10.42 "N			
E12. Longitude:	117 °5 '42.53 "W			
E13. Lat/Lon Coordinates are:		<b>○</b> NAD-27	● NAD-83	O N/A
E14. Site Elevation (AMSL):		68.58 meters		

E15. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurement? If NO, provide as a technical analysis showing compliance with two–degree spacing policy.	es <b>O</b> No	<b>⊚</b> N/A
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E16. If the proposed antenna(s) do not operate in the Fixed Satellite Ser Satellite Service (FSS) with non–geostationary satellites, do(es) the progain patterns specified in Section 25.209(a2) and (b) as demonstrated by measurements?	posed antenna(s) comply with the antenna	O Yes	O No	● N/A
E17. Is the facility operated by remote control? If YES, provide the loca point.	tion and telephone number of the control	Yes	٥	No
E18. Is frequency coordination required? If YES, attach a frequency coordination required?	rdination report as	O Yes	•	No
E19. Is coordination with another country required? If YES, attach the n coordination contours as	ame of the country(ies) and plot of	O Yes	•	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.11 have you attached a copy of a completed FCC Form 854 and/or the FAA the structure to aviation?  FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL I APPLICATION.	a's study regarding the potential hazard of	O Yes	•	No
POINTS OF COMMUNICATION				
Satellite Name: OTHER   OTHER   If you selected OTHER, please en	nter the following:			
E21. Common Name: MSAT-1				
E23. Orbit Location: 106.5 W.L.	E24. Country: Canada			

Satellite Name: SKYTERRA 1 | SKYTERRA 1 | 101.3 W.L. If you selected OTHER, please enter the following:

E21. Common	Name:			E22. ITU Name:				
E23. Orbit Loc	cation:			E24. Country:				
				•				
Satellite Name	:OTHER   OTHER	If you selected	OTHER, please e	nter the following:	:			
E21. Common	Name: MSAT-2			E22. ITU Name	: MSAT-2			
E23. Orbit Loc	cation: 103.3 W.L.			E24. Country:	USA			
POINTS OF	COMMUNICATI	ON (Destination	Points)	•				
E25. Site Ident	tifier: SCMS 6							
E26. Common Name:				E27. Country:	Canada			
				1				
E25. Site Ident	tifier: SCMS 6							
E26. Common Name: MSAT-1				E27. Country: Canada				
				1				
E25. Site Ident	tifier: SCMS 6							
E26. Common	Name: MSAT-2			E27. Country: Canada				
ANTENNA				•				
Site ID	E28. Antenna Id	E29. Quantity	E30. Manufacturer	E31. Model	E32. Antenna Size <meters></meters>	E41/42. Antenna Gain Transmint and/or Recieve (dBi atGHz)		
SCMS 6	M2	1	Westinghouse	AU-10FS	0.76	19.6 dBi at 1.5		
SCMS 6	M2	1	Westinghouse	AU-10FS	0.76	20.2 dBi at 1.6		

Id	Diameter		` ′	Height Above	E38. Total Input Power at antenna flange (Watts)		EIRP for al
M2	0.76/0.76	6.09	74.67	3.0	0.43	3.0	16.5

## FREQUENCY

	E43/44. Frequency Bands (MHz)				EIRP per Carrier	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
M2	1626.5 1660.5	Т	Right Hand Circular	NON	16.5	-19.5

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

Unmodulated Signal

M2	1525	1559	R	Right Hand	5K00G9W	0.0	0.0
				Circular			

E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)

4800 bps QPSK data carrier

M2	1626.5 1660.5		Right Hand Circular	5K00G9W	16.5	-19.5			
E50. Modulation and Services (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)									
4800 bps Q	PSK data carri	er							

# FREQUENCY COORDINATION

E28. Antenna Id	E51. Satellite Orbit Type	E52/53. Frequency Limits(MHz)	E54/55. Range of Satellite Arc Eastern/West ern Limit	0	E57. Antenna Elevation Angle Eastern Limit	E58. Earth Station Azimuth Angle Western Limit	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
M2	Geostationary	1525 1559	101.3/107.3	154.0	48.0	154.0	48.0	0.0
	Geostationary	1626.5 1660.5	101.3/107.3	160.0	51.0	160.0	51.0	-39.5

## REMOTE CONTROL POINT LOCATION

TEMPORE CONTINUES TO MAIN EXPERIMENT	
E61. Call Sign	E66. Phone Number
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	
E62. Street Address	

E63. City	E68. County	E67/68.	E64. Zip Code
		State/Country	
		/	

#### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

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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.

#### 43. Description. (Summarize the nature of the application and the services to be provided).

Applicant's current license (E100051) authorizes the operation of five technically identical transmit/receive earth stations, at fixed locations, as part of its satellite carrier monitoring system. Applicant seeks to modify its current authorization to add a transmit/receive, fixed location, earth station. The proposed earth station will be technically identical to the existing stations mentioned above. The applicant also recently decommissioned one of its facilities and requests that facility be removed from the applicant's authorization. The applicant seeks no other changes to the license.