Date & Time Filed: Jul 28 2015 7:29:19:296AM File Number: SES-MOD-INTR2015-01384

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: Skybox Modification Application

Skybox Modification Application						
1–8. Legal	1–8. Legal Name of Applicant					
	Name:	Skybox Imaging, Inc.	Phone Number:	650–316–6655		
	DBA Name:		Fax Number:	650–472–9063		
	Street:	1061 Terra Bella Avenue	E–Mail:	cscheffler@google.com		
	City:	Mountain View	State:	CA		
	Country:	USA	Zipcode:	94043 –		
	Attention:	Craig Scheffler				

9–16. Name of Contact Representative

Name: Austin Schlick Phone Number: 202–346–1219

Company: Google Inc. **Fax Number:** 202–346–1101

Street: 25 Massachusetts Avenue NW E–Mail: schlick@google.com

9th Floor

City: Washington State:

Country: USA Zipcode: 20001–

Attention: Relationship:

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.

a1. Earth Station

a2. Space Station

(N/A) b1. Application for License of New Station

(N/A) b2. Application for Registration of New Domestic Receive-Only Station

b 3. Amendment to a Pending Application

b4. Modification of License or Registration

b5. Assignment of License or Registration

b6. Transfer of Control of License or Registration

b7. Notification of Minor Modification

(N/A) b8. Application for License of New Receive-Only Station Using Non-U.S. Licensed Satellite

(N/A) b9. Letter of Intent to Use Non–U.S. Licensed Satellite to Provide Service in the United States

(N/A) b10. Other (Please specify)

(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

(N/A) b12. Application for Database Entry

b13. Amendment to a Pending Database Entry Application

b14. Modification of Database Entry

17c. 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):						
17d.						
Fee Classification CGX – Fixed Satellite Transmit/Receive Earth Station						
18. If this filing is in reference to an existing station, enter:	19. If this filing is an amendment to a pending a modification please enter only the file number:	pplication enter both fields, if this filing is a				
(a) Call sign of station: E120025	(a) Date pending application was filed:	(b) File number:				
E120025		SESLIC2012013100120				

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide	e or use the following 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 applicable status. Choose	22. If earth station applicant, check all that apply.
only one.	Using U.S. licensed satellites
Common Carrier Non–Common Carrier	Using Non–U.S. licensed satellites
23. If applicant is providing INTERNATIONAL COMMON CARRIER s facilities:	ervice, see instructions regarding Sec. 214 filings. Choose one. Are these
Connected to a Public Switched Network Not connected to a	Public Switched Network N/A
24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all a	pplicable frequency band(s).
a. C–Band (4/6 GHz) b. Ku–Band (12/14 GHz)	
c.Other (Please specify upper and lower frequencies in MHz.)	
Frequency Lower: 2025 Frequency Upper: 8400	(Please specify additional frequencies in an attachment)

TYPE OF STATION

25. CLASS OF STATION: Choose the button next to the class of station that applies. Choose only one.	
a. Fixed Earth Station	
• b. Temporary–Fixed Earth Station	
c. 12/14 GHz VSAT Network	
d. Mobile Earth Station	
e. Geostationary Space Station	
f. Non–Geostationary Space Station	
g. Other (please specify)	
26. TYPE OF EARTH STATION FACILITY:	
Transmit/Receive Transmit-Only Receive-Only N/A	
"For Space 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 (satellites & Doub
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

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.		Radia	ation	Haz	ard l	Rpt	
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	rou	te 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	•	No	0	N/A	4
31. Is the applicant a corporation organized under the laws of any foreign government?	0	Yes	•	No	0	N/A	4
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	•	No	0	N/A	4

O Yes O No

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

impact as defined by 47 CFR 1.1307? If YES, submit the statement as required by Sections 1.1308 and 1.1311 of

		
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 •	No O 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.	• 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.	• Yes	⊚ 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	• Yes	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.	• Yes	⊘ 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.	O Yes	⊚ 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? FCC	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.)

Skybox Imaging, Inc., requests authority to add an additional antenna at an existing earth station, call sign E120025, designated as ES 2, to serve as additional ground segment capacity for its EESS high-resolution imagery satellite system, call sign S2862. In addition, we request to replace the existing antenna, designated as ES 1 in the existing

Exhibit A

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.	● 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.	O 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.	o 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.

44. Applicant is a (an): (Choose the button next to applicable response.)						
O Individual						
O Unincorporated Association						
Partnership						
Corporation						
O Governmental Entity						
Other (please specify)						
_						
45. Name of Person Signing	46. Title of Person Signing					
Joe Rothenberg	Director of Engineering					
>	·					
(U.S. Code, Title 18, Section 1001), AND/OR R	A ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT EVOCATION OF ANY STATION AUTHORIZATION FORFEITURE (U.S. Code, Title 47, Section 503).					

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

Location of Earth Station Site

E1: Site Identifier: RGS-FB E5. Call Sign: E120025

E2: Contact Name Craig Scheffler E6. Phone 650–316–6655

Number:

E3. Street: c/o GCI E7. City: Fairbanks

Communications

Corp.

1300 Van Horn E8. County: North Star

Road

E4. State AK E9. Zip Code 99701

E10. Area of Operation: Fairbanks, AK

E11. Latitude: 64 °48 '47.4 "N

E12. Longitude: 147 °44 '0.2 "W

E13. Lat/Lon Coordinates are: NAD-27 NAD-83 N/A

E14. Site Elevation (AMSL): 134.0 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.	O Yes	O No	⊗ N/A
E16. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with non–geostationary satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurements?	● Yes	O No	O N/A
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	Yes	· o	No
	-		
E18. Is frequency coordination required? If YES, attach a frequency coordination report as Freq Coordination	⊚ Yes	s 0	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	O Yes	s ©	No
E20. FAA Notification – (See 47 CFR Part 17 and 47 CFR part 25.113(c)) Where FAA notification is required, have you attached a copy of a completed FCC Form 854 and/or the FAA's study regarding the potential hazard of the structure to aviation? FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.	O Yes	s 🔞	No
POINTS OF COMMUNICATION			
Satellite Name: SKYSAT Skybox 2 NGSO If you selected OTHER, please enter the following:			

E21. Common Name:	E22. ITU Name:
E23. Orbit Location:	E24. Country:

Satellite Name: SKYSAT Skybox 1 NGSO	If you selected OTHER, p	please enter the following:
E21. Common Name:]	E22. ITU Name:
E23. Orbit Location:]	E24. Country:

POINTS OF COMMUNICATION (Destination Points)

E25. Site Identifier:	
E26. Common Name:	E27. Country:

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)	
RGS-FB	ES 1	1	Orbital Systems LLC	2.4TSX1	2.4	32.0 dBi at 2.1	
RGS-FB	ES 1	1	Orbital Systems LLC	2.4TSX1	2.4	43.5 dBi at 8.2	
RGS-FB	ES 2	1	Orbital Systems LLC	2.4TSX1	2.4	32.0 dBi at 2.1	
RGS-FB	ES 2	1	Orbital Systems LLC	2.4TSX1	2.4	43.5 dBi at 8.2	

E28. Antenna Id	1	E35. Above Ground Level (meters)	` ′	Height Above	Input Power at	E39. Maximum Antenna Height Above Rooftop (meters)	EIRP for al
ES 1	2.4/2.4	4.88	138.88	0.0	15.8	0.0	42.5
ES 2	2.4/2.4	4.88	138.88	0.0	15.8	0.0	42.5

FREQUENCY

E28. Antenna Id	E43/44. Frequency (MHz)	Bands	E45. T/R Mode	E46. Antenna Polarization(H,V, L,R)	E47. Emission Designator	E48. Maximum EIRP per Carrier (dBW)	E49. Maximum ERIP Density per Carrier (dBW/4kHz)
ES 1	8045	8105	R	Horizontal and Vertical	60M0G1D	0.0	0.0

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.)

Digital/Data Downlink

ES 1 8170 8230 R Horizontal and 60M0G1D 0.0 0.0 Vertical

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.)

Digital/Data Downlink

ES 1	8295	8355	R	Horizontal and Vertical	60M0G1D	0.0	0.0
E50. Mo entirety.)	dulation and Service	es (If t	the complete d	lescription does not appear	in this box, please	e go to the end of	the form to view it in its
Digit	al/Data Downl	ink					
ES 1	8374.8720 8375.1280		R	Horizontal and Vertical	256KG1D	0.0	0.0
Digit	tal/Telemetry						
ES 1	8379.8720 8380.1280		R	Horizontal and Vertical	256KG1D	0.0	0.0
E50. Mo entirety.)	dulation and Service	es (If t	the complete d	description does not appear	in this box, please	e go to the end of	the form to view it in its
Digit	cal/Telemetry						

ES 1	2080.8970 2081.1030	Т	Horizontal and Vertical	110KF1D	42.5	24.8
E50. Modulation entirety.)	n and Services (If t	he complete des	scription does not appear	r in this box, please	e go to the end of	the form to view it in its
	elecommand					
ES 1	2082.8970 2083.1030	Т	Horizontal and Vertical	110KF1D	42.5	24.8
Digital/Te	elecommand					
ES 2	8045 8105	R	Right Hand Circular	60M0G1D	0.0	0.0
E50. Modulation entirety.)	<u> </u>	he complete des	scription does not appea	r in this box, pleas	e go to the end of	the form to view it in its

ES 2	8170 82	30 R	Right Hand Circular	60M0G1D	0.0	0.0
E50. Modulation entirety.)	and Services	(If the complete of	lescription does not appea	ar in this box, please	go to the end of	the form to view it in its
mPSK Data	Downlink					
ES 2	8295 83	55 R	Right Hand Circular	60M0G1D	0.0	0.0
mPSK Data	Downlink					
ES 2	8374.744 8375.256	R	Right Hand Circular	512KF1D	0.0	0.0
E50. Modulation entirety.)	and Services	(If the complete of	lescription does not appear	ar in this box, please	go to the end of	the form to view it in its
BPSK Telen	netry					

ES 2	8379.744 8380.256	R	Right Hand Circular	512KF1D	0.0	0.0
E50. Modulation entirety.)	and Services (If the	ne complete description	on does not appear in	this box, please go t	to the end of the form	to view it in its
BPSK Telem	etry					
ES 2	2080.938 2081.062		Right Hand Circular	124KF1D	42.5	27.6
E50. Modulation entirety.) FSK Teleco		ne complete description	on does not appear in	this box, please go	to the end of the form	to view it in its

FREQUENCY COORDINATION

E28. Antenna Id		E52/53. Frequency Limits(MHz)	Range of Satellite Arc Eastern/West	Station Azimuth Angle	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)
ES 1	Non– Geostationary	8045 8105	0.0/0.0	0.0	0.0	360.0	0.0	0.0

	Non– Geostationary	8170 8230	0.0/0.0	0.0	0.0	360.0	0.0	0.0
	Non– Geostationary	8295 8355	0.0/0.0	0.0	0.0	360.0	0.0	0.0
	Non– Geostationary	2080.897 2081.103	0.0/0.0	0.0	5.0	360.0	5.0	9.8
	Non- Geostationary	2082.897 2083.103	0.0/0.0	0.0	5.0	360.0	5.0	9.8
	Non– Geostationary	8374.872 8375.128	0.0/0.0	0.0	0.0	360.0	0.0	0.0
	Non– Geostationary	8379.872 8380.128	0.0/0.0	0.0	0.0	360.0	0.0	0.0
ES 2	Non– Geostationary	2080.938 2081.062	0.0/360.0	0.0	5.0	360.0	5.0	6.7
	Non– Geostationary	2082.938 2083.062	0.0/360.0	0.0	5.0	360.0	5.0	6.7

REMOTE CONTROL POINT LOCATION

E61. Call Sign	E66. Phone Number 650–316–6660
NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed.	

E62. Street Address 1061 Terra Bella Avenue			
E63. City Mountain View	E68. County Santa Clara	E67/68. State/Country CA/ USA	E64. Zip Code 94043

FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

The public reporting for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the required data, and completing and reviewing the collection of information. If you have any comments on this burden estimate, or how we can improve the collection and reduce the burden it causes you, please write to the Federal Communications Commission, AMD–PERM, Paperwork Reduction Project (3060–0678), Washington, DC 20554. We will also accept your comments regarding the Paperwork Reduction Act aspects of this collection via the Internet if you send them to PRA@fcc.gov. PLEASE DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

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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).

Skybox Imaging, Inc., requests authority to add an additional antenna at an existing earth station, call sign E120025, designated as ES 2, to serve as additional ground segment capacity for its EESS high-resolution imagery satellite system, call sign S2862. In addition, we request to replace the existing antenna, designated as ES 1 in the existing authorization, with the same as the proposed ES 2 antenna model and manufacturer. See Exhibit A (Description of Request).