Approved by OMB 3060–0678

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APPLICATION FOR EARTH STATION AUTHORIZATIONS	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:

Cross City 3.8 meter earth station application

1–8. Legal	Name of App	plicant		
	Name:	HARRIS CORPORATION	Phone Number:	321-727-9234
	DBA Name:		Fax Number:	321-727-9125
	Street:	1025 West Nasa Blvd.	E-Mail:	bfitch@harris.com
	City:	Melbourne	State:	FL
	<b>Country:</b>	USA	Zipcode:	32919 –
	Attention:	Bruce Fitch		

Name:	George Y. Wheeler	Phone Number:	202-955-3000
Company:	Holland & Knight LLP	Fax Number:	202-955-5564
Street:	800 17th Street, NW Suite 1100	E–Mail:	george.wheeler@hklaw.com
City:	Washington	State:	DC
Country:	USA	Zipcode:	20006-
Attention:	George Y. Wheeler	<b>Relationship:</b>	Legal Counsel

# CLASSIFICATION OF FILING

17. Choose the button next to the	b.
classification that applies to this filing for	b1. Application for License of New Station
both questions a. and b. Choose only one for 17a and only one for 17b.	<b>b</b> 2. Application for Registration of New Domestic Receive–Only Station
	(N/A) b3. Amendment to a Pending Application
a.	(N/A) b4. Modification of License or Registration
a1. Earth Station	(N/A) b5. Assignment of License or Registration
(N/A) a2. Space Station	(N/A) b6. Transfer of Control of License or Registration
	(N/A) 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
	<b>b</b> 10. Other (Please specify)
	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.
	• b12. Application for Database Entry
	(N/A) b13. Amendment to a Pending Database Entry Application
	(N/A) b14. Modifiction of Database Entry
17c. Is a fee submitted with this applicati	on?
	159. If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).
Governmental Entity O Noncomme	rcial educational licensee
• Other(please explain): Resubmission	of File #SES–LIC–20121231–01134, fee not reqd per, 47 CFR
17d.	
Fee Classification BAX – Fixed Satellite T	ransmit/Receive Earth
Station	

18. If this filing is in reference to an	19. If this filing is an amendment to a pending ap	oplication enter:
existing station, enter:	(a) Date pending application was filed:	(b) File number of pending application:
(a) Call sign of station:		
Not Applicable	Not Applicable	Not Applicable

## 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
	Using Non–U.S. licensed satellites
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 applicable frequency band(s).

**x** a. C–Band (4/6 GHz) **b**. Ku–Band (12/14 GHz)

c.Other (Please specify upper and lower frequencies in MHz.)

Frequency Lower: Frequency Upper:

#### TYPE OF STATION

a. Fixed Earth S	ation	
b. Temporary–F	xed Earth Station	
c. 12/14 GHz V	AT Network	
d. Mobile Earth	Station	
	tionary Space Station	
g. Other (please	specify)	
YPE OF EARTH ST	ATION FACILITY: Choose only one.	

#### PURPOSE OF MODIFICATION

27. The purpose of this proposed modification is to: (Place an 'X' in the box(es) next to all that apply.)

Not Applicable

#### ENVIRONMENTAL POLICY

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	• Yes	● No
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	Rad Haz	
modifications, or major amendments.		

ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronautical en route or aeronautical fixed radio station services are not required to respond to Items 30–34.

29. Is the applicant a foreign government or the representative of any foreign government?	O Yes ● No
30. Is the applicant an alien or the representative of an alien?	O Yes ● No O N/A
31. Is the applicant a corporation organized under the laws of any foreign government?	O Yes ● No O 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?	O Yes ● No O N/A

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?

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.	O 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 No ■

• Yes • No • N/A

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 attemptiing 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	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	● 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.

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.



• Yes

O No

42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what administration has coordinated or is in the process of coordinating the space station?

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.)

Harris Corporation requests authority to construct and operate a 3.8 meter C Band earth station to be used in connection with a critical project for the Federal Aviation Administration

FAA Infra Contr. Ltr

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.	<b>О</b> <sup>В</sup>
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.

45. Name of Person Signing Jim Sheppard		e of Person Signing n Manager	
47 DI 1 1 1 1			
47. Please supply any need attachments. Attachment 1: Application Purpose	Attachment 2:	Attachment 3:	

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

Location of Earth St	ation Site					
E1: Site Identifier:	CROSS CITY	E5. Call Sign:	NEW			
E2: Contact Name	BRUCE FITCH	E6. Phone Number:	321-309-5517			
E3. Street:	CTY – 10191 NE 351 HWY	E7. City:	OLD TOWN			
		E8. County:	DIXIE			
E4. State	FL	E9. Zip Code	32680			
E10. Area of Operat	tion:	FIXED POINT SPE	ECIFIED IN E11 & E	.12		
E11. Latitude:	29 °44 '36.9 "N					
E12. Longitude:	83 °0 '1.8 "W					
E13. Lat/Lon Coord	linates are:	O NAD-27	NAD-83	O <sup>N/A</sup>		
E14. Site Elevation	(AMSL):	18.3 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 asNon Comp Stmnt a technical analysis showing compliance with two-degree spacing policy.	O Yes	● <sup>No</sup>	O <sup>N/A</sup>
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?	O Yes	O <sup>No</sup>	● <sup>N/A</sup>
E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point.	O Yes	۲	No

E18. Is frequency coordination required? If YES, attach a frequency coordination report as	۲	Yes	0	No
E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as	0	Yes	۲	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.	0	Yes	۲	No

#### POINTS OF COMMUNICATION

Satellite Name:SES-2 (S2826) | SES-2 | 87 W.L. If you selected OTHER, 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	Size <meters></meters>	E41/42. Antenna GainTransmint and/or Recieve (dBi at GHz)
CROSS CITY	1	1	Prodelin	1383	3.8	46.0 dBi at 6.17
						41.9 dBi at 3.912

E28. Antenna Id	E33/34. Diameter Minor/Major (meters)			Height Above Ground	Input Power at antenna flange 	Maximum Antenna Height	E40. Total EIRP for al carriers  (dBW)
1	3.8/3.8	4.0	22.3	0.0	4.65	0.0	35.2

# FREQUENCY

 E43/44. Frequency Bands (MHz)		EIRP per Carrier	E49. Maximum ERIP Density per Carrier
(1/112)	L,IX)	× /	(dBW/4kHz)

1	3700	4200	R	Vertical	96K0G7W	0.0	0.0
E50. Modulation entirety.)	and Services	s (If tl	ne complete description	l on does not appear in	this box, please go to	the end of the form	to view it in its
QPSK.							
1	5925	6425	Т	Horizontal	96K0G7W	35.2	21.4
E50. Modulation entirety.)	and Services	s (If tl	ne complete description	on does not appear in	this box, please go to	o the end of the form	to view it in its
QPSK.							
FREQUENCY CO	DORDINAT	ION					

E28. Antenna Id	E51. Satellite Orbit Type	Frequency	E54/55. Range of Satellite Arc E/W Limit	Station Azimuth Angle	E57. Antenna Elevation Angle Eastern Limit	Station Azimuth Angle	E59. Antenna Elevation Angle Western Limit	E60. Maximum EIRP Density toward the Horizon (dBW/4kHz)
1	Geostationary	5925 6425	15.0/ 139.0	101.4	10.9	252.0	20.9	-24.0

REMOTE CONTROL POINT LOCATION

E61. Call Sign	E65. Phone Number			
NOTE: Please enter the callsign of the contro callsign for which this application is being filed.				
E62. Street Address				
E63. City	E67. County		E64/68. State/Country /	E66. Zip Code

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

The public reporting for this collection of information is estimated to average 0.25 – 24 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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