Harris Corporation Request for Special Temporary Authority 2.4m C Band Temporary Transportable Earth Station

Harris Corporation ("Harris") hereby requests Special Temporary Authority for a sixty day period beginning May 25, 2011 to deploy a 2.4m Flyaway C-Band terminal to a location in Hodgen, Oklahoma in order to support FAA Air Traffic Control operations. The terminal will provide communications between aircraft in the area and the Memphis Air Route Traffic Control Center (ARTCC).

The existing FAA terrestrial communications are carried via a microwave network, which has recently experiencing disruptions caused by a series of severe weather related events in the area. Satellite technology was selected to provide temporary connections because the Hodgen, Oklahoma location is isolated and there are no other viable networks in the vicinity which could provide the necessary communications to promptly restore this disruption. Deployment of the 2.4m Flyaway C-Band terminal will allow critical air traffic communications to be uplinked via the Harris satellite network back to the Memphis ARTCC and the Air Traffic Controllers until the existing terrestrial system can be repaired and/or replaced.

Harris submits that a grant of this application will serve the public interest because it will assist the FAA's mission of ensuring flight safety.

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¹ Harris Corporation, serves as the current FAA Telecommunications Infrastructure contractor (see attached letter).



U.S. Department of Transportation

800 Independence Ave., S.W. Washington, D.C. 20591

Federal Aviation Administration

ASU330-FTI-06-6219 18 January 2006

Harris Corporation Attn: Elizabeth Briscoe Mail Stop F- 11A 1025 West NASA Boulevard Melbourne, FL 32919

Subject: FAA Concurrence for Harris C-Band and Ku-Band License Submissions

Dear Ms. Briscoe:

This letter serves to affirm that Harris Corporation, the FAA Telecommunications Infrastructure contractor, requires C-Band and Ku-Band Satellite Frequency Licenses to meet the FAA's data and voice service requirements from remote locations. FAA Satellite communications are essential to the air traffic control and safety of flight within the National Airspace System (NAS). These licenses will also be used in response to emergency operations such as disaster recovery. Granting these licenses is considered in the best interest of the flying public.

If you have any questions regarding matter, please call me at 202.493.5963.

Sincerely,

//s//

Susan Eicher FTI Contracting Officer

FCC 312 Main Form		3060-0678 Est. Avg.Burden Hours	FCC Use Only File Number:
APPLICATION FO	FEDERAL COMMUNICATIONS COMMISSION OR SATELLITE SPACE AND EARTH STATION AUTHORI	Per Response: 11 Hrs.	Call Sign:
		ZATIONS	Fee Number:

	APPLICA	NT INFORMATIO	N			
Legal Name of Applicant Harris Corporation		2. Voice Telephone Number 321-309-2352				
3. Other Name Used for Doin			4. Fax Telephone	Number		
5. Mailing Street Address or I	P.O. Box		6. City			
1025 West NASA	Blvd.		Melbourne			
ATTENTION: Alexa Ey			7. State / Country (if a	not U.S.A.)	8. Zip Code 32919	
9. Name of Contact Represent George Y. Wheeler	ative (If other than applicant)		10. Voice Telephone Number 202-955-3000			
11. Firm or Company Name Holland & Knight LLP			12. Fax Telephone Number 202-955-5564			
13. Mailing Street Address or 2099 Pennsylvani			14. City Washington			
ATTENTION: George Y	·	15. State / Country (if not U.S.A) DC		16. Zip Code 20006-6801		
17 Diago on "V" in the hours	CLASSIFIC	CATION OF FILIN	G			
17. Hace an 2x in the box he	ext to the classification that applies to this filing for both questions a. and b					
	b1. Application for License of New Station b2. Application for Registration of New Domestic Receive-Only Station	!	Control of License or Re	egistration		
🗶 a1. Earth Station	b7. Notification	b7. Notification of Minor Modification				
	b3. Amendment to a Pending Application	b8. Application	for License of New Rec	eive-Only Station	Using Non-U.S. Licensed Satellite	
a2. Space Station b4. Modification of License or Registration b9. Letter of Intent to Use Non-U.S. Licensed Satellite to Provide Service in the United State						
	b5. Assignment of License or Registration	b10. Other (Plea	ase Specify):			
18. If this filing is in reference	to an existing station, enter:	19. If this filing is an	amendment to a pendin	g application enter	:	
Call sign of station:		(a) Date pending	application was filed	(h)	File number of nonding analisation.	

Not Applicable

(a) Date pending application was filed:

Not Applicable

(b) File number of pending application:

Not Applicable

TYPE OF SERVICE

20. NATURE OF SERVICE: This filing is for an authorization to provide or use the following type(s) of serv	ice(s): Place an "X" in the box(es) next to all that apply.								
a. Fixed Satellite c. Radiodetermination Satellite e. Direct to Home Fixe	d Satellite								
b. Mobile Satellite d. Earth Exploration Satellite f. Digital Audio Radio	Service g. Other (please specify)								
21. STATUS: Place an "X" in the box next to the applicable status. Mark only one box.	22. If earth station applicant, place an "X" in the box(es) next to all that apply.								
a. Common Carrier b. Non-Common Carrier	a. Using U.S. licensed satellites b. Using Non-U.S. licensed satellites								
23. If applicant is providing INTERNATIONAL COMMON CARRIER service, see instructions regarding Se	c. 214 filings. Mark only one box. Are these facilities:								
	a. Connected to the Public Switched Network b. Not connected to the Public Switched Network								
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) c. Other (Please specify)									
TYPE OF	STATION								
25. CLASS OF STATION: Place an "X" in the box next to the class of station that applies. Mark only one bo	X.								
a. Fixed Earth Station b. Temporary-Fixed Earth Station c. 12/14 GHz VSAT Netwo If space station applicant, go to Question 27.	rk d. Mobile Earth Station e. Space Station f. Other (Specify)								
26. TYPE OF EARTH STATION FACILITY Mark only one box.									
a. Transmit/Receive									
PURPOSE OF MODIFICA	ATION OR AMENDMENT								
27. The purpose of this proposed modification or amendment is to: Place an "X" in the box(es) next to all tha	t apply.								
a authorization to add new emission design									
b authorization to change emission designa									
c authorization to increase EIRP and EIRP d authorization to replace antenna	density								
e — authorization to add antenna									
f authorization to relocate fixed station									
g authorization to change assigned frequen h authorization to add Points of Communic									
i authorization to add Folias of Communic									
j authorization for facilities for which envir	conmental assessment and radiation hazard reporting is required								
k Other (Please Specify)									
	NTAL POLICY								
28. Would a Commission grant of any proposal in this application or amendment have a significant environme If YES, submit the statement as required by Sections 1.1308 and 1.1311 of the Commission's rules, 47 C.F.R.	ntal impact as defined by 47 CFR 1.1307? §§ 1.1308 and 1.1311, as an exhibit to this application.								
A Radiation Hazard Study must accompany all applications as an exhibit for new transmitting facilities, major	modifications, or major amendments. Refer to OET Bulletin 65.								

ALIEN OWNERSHIP

29. Is the applicant a foreign government or the representative of any foreign government?	YES	× NO
30. Is the applicant an alien or the representative of an alien?	YES	× NO
31. Is the applicant a corporation organized under the laws of any foreign government?	YES	× NO
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?	YES	⋉ NO
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?	YES	⋉ NO
34. If any answer to questions 29, 30, 31, 32 and/or 33 is Yes, attach as an exhibit, the 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 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 explanation of the circumstances.	YES	× NO
37. Has the applicant, or any party to this application, 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 explanation of the 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 the circumstances.	YES	x 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 exhibit, 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, addresses, and citizenship of stockholders owning of record and/or voting 10 percent or more of the Filer's voting stock and the percentages so held. In the case of control, indicate the beneficiary(ies) or class of beneficiaries. Also list the names and addresses of the officers and directors of the Filer's voting stock and the percentages are control, indicate the beneficiary(ies) or class of beneficiaries.	of fiduciary	
41. By checking Yes, the undersigned certifies, that neither the 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	YES e purposes.	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.	YES	⋉ 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 (St	ummarize the nature of the application and the services to be provided).		
45. Description. (Se	miniarize me nature of me apprication and me services to be provided).		
was med area resident bad \$100,000 (\$50,000,000 (\$0.00)) open med have east lines was mile, \$10°0,00°0,00°0,00°0,00°0,00°0,00°0,00°0			UMET PASS ARRESTMENT AND ARRESTMENT TO THE TOTAL MARKET.
			ARTHOCORES and recommend in princip apprings you may recome
			**(TP#TD SSS:/400,400,400,400,400,400)
Exhibit No.	Identify all exhibits that are attached to this application.		
1	FAA Letter		F***
2	Frequency Coordination		
	CERTIFICATION	ON	
application would and are incorporat application and in	aives any claim to the use of any particular frequency or of the electromagnetic of the same, whether by license or otherwise, and requests an authorization in a lot cause the applicant to be in violation of the spectrum aggregation limit in the ted herein as if set out in full in this application. The undersigned, individual a all attached exhibits are true, complete and correct to the best of his or her known as the same true.	n accordance with this application. The applicant certifies that grant of in 47 CFR Part 20. All statements made in exhibits are a material part ally and for the applicant, hereby certifies that all statements made in the statements made in the statements.	of this
44. Applicant is a (ar	m): (Place an "X" in the box next to applicable response.)		
a. Individual	b. Unincorporated Association	e. Governmental Entity f. Other (Please specify)	
45. Typed Name of Person	n Signing	46. Title of Person Signing	
47. Signature		48. Date	
		To. Date	
I (U.S. Code,	FALSE STATEMENTS MADE ON THIS FORM ARE PUT, Title 18, Section 1001), AND/OR REVOCATION OF ANY 2(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section	STATION AUTHORIZATION (U.S. Code Title 47	

FCC 312 Schedule B License of New Station B1. Location of Earth State B1a. Station Call Sign	Registration of New Domestic Receive-Only Static tion Site. If temporary-fixed, For VSAT networks Location, Points of B1b. Site Identifier (HUB, REMOT PGO-VOR	ATELLITI (Techi	viduai Schedule B.	Application Mapplication Mappli	RIZATION iption) Modification of the peration are each hub statch hub and re	f License/Reginal point of contact and each emote station.	ontact. If VS a remote stati	Notification of l AT hub station	lly provide the		
Bld. Street Address of Station or A			Ble. Name of Contact	321-309-2352 Person		Lat.	34 40	49.37 N	NAD-27		
19030 State Highway	1		Alexa Eyster			Lon.	94 36	32,42 W	MAD-83		
B1f. City Hodgen	B1g. (County ore		B1h. State OK	B1i. Zip Code 74939			vation (AMSL)	meters		
B2. Points of Communications: List the names and orbit locations of all satellites with which this earth station will communicate. The entry "ALSAT" is sufficient to identify the names and locations of all satellite facilities licensed by the U.S. All non-U.S. licensed satellites must be listed individually.							fficient to individually.				
Satellite Name and Orbi	t Location					Satellite 1	Satellite Name and Orbit Location				
AMC3 +87	deg. West										
				-							
B3. Destination points for	communications using non-l des sat	U.S. licensed stination point cellite system	d satellites. For each (s) (countries) who is use additional shape.	ch non-U.S. licen ere the services valeets as needed.	nsed satellite will be provi	facility ident ded by this ea	ified in section vi	n B2 above, s a each non-U.	pecify the S. licensed		
Satellite Name	List of Destination	Points						····			
AMC3				South Mounta	ain, CA, USA						
AMC3				WoodBine	, MD, USA						
									М		
		······································									

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FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS

FCC Form 312 - Schedule B: (Technical and Operational Description)

B4. Earth Station Antenna Facilities: Use additional pages as needed.

(a) Site ID*	(b) Antenna ID**	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Antenna Gain Transmit and/or Receive (dBi atGHz)
PGO-VOR	1		Patriot	TXFLY-240	2.4	Tx 42.4 dBi @ 6.175 GHz Rx 38.6 dBi @ 4.0 GHz

B5. Antenna Heights and Maximum Power Limits: (The corresponding Antenna ID in tables B4 and B5 applies to the same antenna)

(a) Antenna ID**	(b) Antenna Structure Registration No.	Maximum Ai (c) Above Ground Level (meters)	ntenna Height (d) Above Mean Sea Level (meters)	(e) Building Height Above Ground Level (meters)***	(f) Maximum Antenna Height Above Rooftop (meters)***	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
1	N/A	4	607	N/A	N/A	0.1W	32 dBW
				27 W	157 W	10.3	14
103.6	253.5	0.0					

Notes: * If this is an application for a VSAT network, identify the site (Item B1b, Schedule B, Page 1) where each antenna is located. Also include this Site-ID on Schedule B, Page 5.

^{**} Identify each antenna in VSAT network or multi-antenna station with a unique identifier, such as HUB, REMOTE1, A1, A2, 10M, 12M, 7M, etc. Use this same antenna ID throughout tables B4, B5, B6, and B7 when referring to the same antenna.

^{***} Attach sketch of site or exemption, See 47 CFR Part 17.

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

B6. Frequency Coordination Limits: Use additional pages as needed.

(b) Frequency Limits (MHz)	(c) Range of Satellite Arc Eastern Limit**	(d) Range of Satellite Arc Western Limit**	(e) Antenna Elevation Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(h) Earth Station Azimuth Angle Western Limit	(i) Maximum EIRP Density toward the Horizon (dBW/4kHz)
5925 - 6425 MHz	27 W	157 W	10.3	14	103.6	253.5	0.0
		1	5925 - 6425 MHz				

			19				

					-		
,an							
	Frequency Limits (MHz) 5925 - 6425 MHz	Frequency Limits (MHz) 5925 - 6425 MHz 27 W	5925 - 6425 MHZ 27 W 157 W	5925 - 6425 MHz 27 W 157 W 10.3	3925 - 6425 MHZ 27 W 157 W 10.3 14	3925 - 6425 MHz 27 W 157 W 10.3 14 103.6	5925 - 6425 MHZ 27 W 157 W 10.3 14 103.6 253.5

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and orbital arc range is associated.

^{**} If operating with geostationary satellites, give the orbital arc limits and the associated elevation and azimuth angles. If operating with non-geostationary satellites, give the notation "NON-GEO" for the satellite arc and give the minimum operational elevation angle and the maximum azimuth angle range.

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

B7. Particulars of Operation (Full particulars are required for each r.f. carrier): Use additional pages as needed.

(a) Antenna ID*	(b) Frequency Bands (MHz)	(c) T/R Mode **	(d) Antenna Polarization (H,V,L,R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
1	5925 - 6425 MHz	T	Н	96KG1W	32	-2	96 kbps QPSK

		-					
		<u> </u>					
		<u> </u>					
WWW.PGIAN III. 178							
	<u> </u>						

Notes: * Provide the ANTENNA-ID from table B4 to identify the antenna to which each frequency band and emission is associated. For VSAT networks, include frequencies and emissions for all HUB and REMOTE units.

** Indicate whether the earth station transmits or receives in each frequency band.

Page 5: Questions

FEDERAL COMMUNICATIONS COMMISSION SATELLITE EARTH STATION AUTHORIZATIONS FCC Form 312 - Schedule B: (Technical and Operational Description)

If VSAT Network, provide the SITE-ID (Item B1b) of the station that B8-B13 are in response to (HUB, REMOTE1, etc.): B8. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with geostationary satellites, do(es) the proposed antenna(s) × YES NO comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurements? If NO, provide as an exhibit, a technical analysis showing compliance with two-degree spacing policy. B9. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service X YES NO (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? B10. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point. YES × NO **Remote Control Point Location:** B10a, Street Address B10b. City B10c. County B10d. State / Country B10e. Zip Code B10f. Telephone Number B10g. Call Sign of Control Station (if appropriate) × YES B11. Is frequency coordination required? If YES, attach a frequency coordination report as an exhibit. NO B12. Is coordination with another country required? If YES, attach the name of the country(ies) YES × NO and plot of coordination contours as an exhibit. B13. FAA Notification - (See 47 CFR Part 17 and 47 CFR Part 25.113(c)) YES × NO Where FAA notification is required, have you attached a copy of a completed FCC Form 854

FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION.

and/or the FAA's study regarding the potential hazard of the structure to aviation?