E080138 SES-STA-20160112-00034 Harris CapRock Communications, Inc.

3060-0678 Approved by OMB

# APPLICATION FOR EARTH STATION SPECIAL TEMPORARY AUTHORITY

APPLICANT INFORMATIONEnter a description of this application to identify it on the main menu: 60-day STA for Permitted List Authority (E080138)

1. Applicant

Harris CapRock Communications, Phone Number: Name:

Inc.

Fax Number:

832-668-2753

832-668-2780

**DBA** Name:

Street:

4400 S. Sam Houston Parkway Ea E-Mail:

 $\mathbf{T}\mathbf{X}$ 

Houston City:

State:

Zipcode:

77048

1

Attention:

USA

Country:

Ms EllenAnn Sands

File # SES-578-30/60/12-20034 Call Sign Old Grant Date erm Dates (or other identifier) International Bureau | Approved: From: CHANNED CHANNED

| 2. Contact  |   |                            |  |
|---|---|----------------------------|--|
| Name:   | Carlos Nalda  | Phone Number:              | 571–332–5626   |
| Company:  | LMI Advisors  | Fax Number:                |  |
| Street:   | 8601 James Creek Drive  | E-Mail:                    | cnalda@lmiadvisors.com   |
| City:   | Springfield   | State:                     | VA   |
| Country:  | USA   | Zipcode:                   | 22152 –  |
| Attention:  |   | Relationship:              | Other  |
| (If your application is related to an application application. Please enter only one.)  3. Reference File Number or Submission ID | slated to an application filed with the r only one.)  | Commission, enter eith     | (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 or Submission ID |
| 4a. Is a fee submitted  If Yes, complete and  | 4a. Is a fee submitted with this application?  If Yes, complete and attach FCC Form 159. If No, inc | icate reason for fee exen  | If No, indicate reason for fee exemption (see 47 C.F.R.Section 1.1114).  |
| O Governmental Entity   | y O Noncommercial educational licensee  | l licensee                 |  |
| Other(please explain):  | n):   |                            |  |
| 4b. Fee Classification  | CGX - Fixed Satellite Transmit/Receive Earth Station  | ceive Earth Station        |  |
| 5. Type Request   |   |                            |  |
| Use Prior to Grant  | O Chang   | O Change Station Location  | O Other  |
|   |   |                            |  |
| 6. Requested Use Prior Date 01/20/2016  | Date  |                            |  |
| 7. CityBHP Shenzi   |   | 8. Latitude (dd mm ss.s h) | sh) 27 18 2.2 N  |
|   |   |                            |  |

| 9. State  | 10. Longitude<br>(dd mm ss.s h) 90 8 6.0 W   |
|---|--|
| 11. Please supply any need attachments.  Attachment 1: Narrative Statement  Attachment 2: Coordination Report   | ıtion Report Attachment 3: Mod App   |
| 12. Description. (If the complete description does not appear in this box,  Harris CapRock seeks a 60-day special temporary  Tel Model 9797 C-band terminal on the BHP Sher  the Commission's Permitted Space Station List.   | (If the complete description does not appear in this box, please go to the end of the form to view it in its entirety.)  pRock seeks a 60-day special temporary authorization to operate its licensed Sea 1 9797 C-band terminal on the BHP Shenzi while communicating with satellites on ission's Permitted Space Station List. |
| 13. 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. | any other party to the application is to Section 5301 of the Anti-Drug Act r distribution of a controlled substance.   |
| 14. Name of Person Signing<br>EllenAnn Sands  | 15. Title of Person Signing Legal Counsel  |
| WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).   | ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT OCATION OF ANY STATION AUTHORIZATION FORFEITURE (U.S. Code, Title 47, Section 503).   |

ė į

## 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 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 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 DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.

Remember - You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to provide you with this notice. This collection has been assigned an OMB control number of 3060-0678. 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.

## FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for
CAPROCK COMMUNICATIONS CORP.
SHENZI, GM
(E080138)
Satellite Earth Station

Prepared By: COMSEARCH 19700 Janelia Farm Boulevard Ashburn, VA 20147 January 07, 2016

### TABLE OF CONTENTS

| 1. | CONCLUSIONS                     | 3  |
|----|---------------------------------|----|
|    | SUMMARY OF RESULTS              |    |
|    | SUPPLEMENTAL SHOWING.           |    |
| 4. | EARTH STATION COORDINATION DATA | 6  |
|    |                                 | ın |

### 1. CONCLUSIONS

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

### 2. SUMMARY OF RESULTS

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

### 3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 12/15/2015.

<u>Company</u> RigNet SatCom, Inc.

### 4. EARTH STATION COORDINATION DATA

| This section presents the data pertinent to frequency circulated to all carriers within its coordination contours | coordination of the p | roposed earth station | on that was |
|---|-----------------------|-----------------------|-------------|
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |
|   |                       |                       |             |

### COMSEARCH

### **Earth Station Data Sheet**

19700 Janelia Farm Boulevard, Ashburn, VA 20147 (703)726-5500 http://www.comsearch.com

Date:

01/07/2016

Job Number:

151215COMSGE13

Administrative Information

Status

**ENGINEER PROPOSAL** 

Call Sign

E080138

Licensee Code

**CAROCO** 

Licensee Name

CAPROCK COMMUNICATIONS CORP.

Site Information

Venue Name

Latitude (NAD 83) Longitude (NAD 83) 27° 18' 2.2" N 90° 8' 6.0" W

SHENZI, GM

Climate Zone

Α

Rain Zone

1

Ground Elevation (AMSL)

0.0 m / 0.0 ft

**Link Information** 

Satellite Type

Geostationary

Mode

Model

TR - Transmit-Receive

Modulation

Digital

Satellite Arc

60° W to 143° West Longitude

Azimuth Range

128.3° to 250.8°

Corresponding Elevation Angles

44.0° / 24.5°

Antenna Centerline (AGL)

60.96 m / 200.0 ft

| Antenna   | Information |
|-----------|-------------|
| Manufactu | irer        |

Receive - FCC32 SeaTel 9797

SeaTel 9797

Gain / Diameter 3-dB / 15-dB Beamwidth 38.5 dBi / 2.4 m 0.50° / 1.00°

41.7 dBi / 2.4 m 0.60° / 1.20°

**Transmit - FCC32** 

Max Available RF Power

(dBW/4 kHz) (dBW/MHz)

-19.1 4.9

Maximum EIRP

(dBW/4 kHz) (dBW/MHz)

22.6 46.6

Interference Objectives:

Long Term Short Term

-156.0 dBW/MHz -146.0 dBW/MHz 20%

0.01%

-151.8 dBW/4 kHz -130.8 dBW/4 kHz

20% 0.0025%

**Frequency Information** 

Emission / Frequency Range (MHz)

Receive 4.0 GHz 1M76G7W / 3700.0 - 4200.0

Transmit 6.1 GHz 1M76G7W / 5925.0 - 6425.0

Max Great Circle Coordination Distance Precipitation Scatter Contour Radius

336.0 km / 208.7 mi 569.6 km / 353.9 mi 137.0 km / 85.1 mi 100.0 km / 62.1 mi

### **COMSEARCH**

### **Earth Station Data Sheet**

19700 Janelia Farm Boulevard, Ashburn, VA 20147 (703)726-5500 http://www.comsearch.com

**Coordination Values** 

SHENZI, GM

Licensee Name

CAPROCK COMMUNICATIONS CORP.

Latitude (NAD 83) Longitude (NAD 83) Ground Elevation (AMSL) 27° 18' 2.2" N 90° 8' 6.0" W

0.0 m / 0.0 ft

Antenna Centerline (AGL)

60.96 m / 200.0 ft

Antenna Model

SeaTel 2.4 meter

Antenna Mode

Receive 4.0 GHz

Interference Objectives: Long Term

-156.0 dBW/MHz

Transmit 6.1 GHz

20%

-151.8 dBW/4 kHz

20%

Short Term

-146.0 dBW/MHz 0.01% -130.8 dBW/4 kHz

0.0025%

Max Available RF Power

-19.1 (dBW/4 kHz)

|             |               |                    | Receive       | e 4.0 GHz     | Transn     | nit 6.1 GHz   |
|-------------|---------------|--------------------|---------------|---------------|------------|---------------|
|             | Horizon       | Antenna            | Horizon       | Coordination  | Horizon    | Coordination  |
| Azimuth (°) | Elevation (°) | Discrimination (°) | Gain (dBi)    | Distance (km) | Gain (dBi) | Distance (km) |
| 0           | 0.00          | 107.37             | -10.00        | 285.28        | -10.00     | 118.87        |
| 5           | 0.00          | 111.86             | -10.00        | 285.28        | -10.00     | 118.87        |
| 10          | 0.00          | 109.96             | -10.00        | 285.28        | -10.00     | 118.87        |
| 15          | 0.00          | 106.55             | -10.00        | 285.28        | -10.00     | 118.87        |
| 20          | 0.00          | 103.07             | -10.00        | 285.28        | -10.00     | 118.87        |
| 25          | 0.00          | 99.54              | -10.00        | 285.28        | -10.00     | 118.87        |
| 30          | 0.00          | 95.97              | -10.00        | 285.28        | -10.00     | 118.87        |
| 35          | 0.00          | 92.39              | -10.00        | 285.28        | -10.00     | 118.87        |
| 40          | 0.00          | 88.79              | -10.00        | 285.28        | -10.00     | 118.87        |
| 45          | 0.00          | 85.19              | -10.00        | 285.28        | -10.00     | 118.87        |
| 50          | 0.00          | 81.62              | -10.00        | 285.28        | -10.00     | 118.87        |
| 55          | 0.00          | 78.08              | -10.00        | 285.28        | -10.00     | 118.87        |
| 60          | 0.00          | 74.58              | -10.00        | 285.28        | -10.00     | 118.87        |
| 65          | 0.00          | 71.14              | -10.00        | 285.28        | -10.00     | 118.87        |
| 70          | 0.00          | 67.79              | -10.00        | 285.28        | -10.00     | 118.87        |
| 75          | 0.00          | 64.54              | -10.00        | 285.28        | -10.00     | 118.87        |
| 80          | 0.00          | 61.41              | -10.00        | 285.28        | -10.00     | 118.87        |
| 85          | 0.00          | 58.42              | -10.00        | 285.28        | -10.00     | 118.87        |
| 90          | 0.00          | 55.62              | -10.00        | 285.28        | -10.00     | 118.87        |
| 95          | 0.00          | 53.03              | -10.00        | 285.28        | -10.00     | 118.87        |
| 100         | 0.00          | 50.69              | -10.00        | 285.28        | -10.00     | 118.87        |
| 105         | 0.00          | 48.63              | -10.00        | 285.28        | -10.00     | 118.87        |
| 110         | 0.00          | 46.91              | -9.78         | 286.68        | -9.78      | 119.44        |
| 115         | 0.00          | 45.55              | -9.46         | 288.73        | -9.46      | 120.26        |
| 120         | 0.00          | 44.59              | -9.23         | 290.21        | -9.23      | 120.86        |
| 125         | 0.00          | 44.07              | -9.10         | 291.04        | -9.10      | 121.19        |
| 130         | 0.00          | 44.00              | -9.09         | 291.16        | -9.09      | 121.24        |
| 135         | 0.00          | 44.38              | -9.18         | 290.56        | -9.18      | 121.00        |
| 140         | 0.00          | 45.19              | <b>-</b> 9.38 | 289.28        | -9.38      | 120.49        |
| 145         | 0.00          | 46.42              | -9.67         | 287.40        | -9.67      | 119.73        |
| 150         | 0.00          | 48.03              | -10.00        | 285.28        | -10.00     | 118.87        |
| 155         | 0.00          | 49.98              | -10.00        | 285.28        | -10.00     | 118.87        |
| 160         | 0.00          | 52.24              | -10.00        | 285.28        | -10.00     | 118.87        |
| 165         | 0.00          | 54.63              | -10.00        | 285.28        | -10.00     | 118.87        |
| 170         | 0.00          | 56.52              | -10.00        | 285.28        | -10.00     | 118.87        |
| 175         | 0.00          | 57.71              | -10.00        | 285.28        | -10.00     | 118.87        |
| 180         | 0.00          | 58.12              | -10.00        | 285.28        | -10.00     | 118.87        |
| 185         | 0.00          | 57.71              | -10.00        | 285.28        | -10.00     | 118.87        |

### COMSEARCH

### **Earth Station Data Sheet**

19700 Janelia Farm Boulevard, Ashburn, VA 20147 (703)726-5500 http://www.comsearch.com

**Coordination Values** 

SHENZI, GM

Licensee Name

CAPROCK COMMUNICATIONS CORP.

Latitude (NAD 83) Longitude (NAD 83) 27° 18' 2.2" N

Ground Elevation (AMSL) Antenna Centerline (AGL)

90° 8' 6.0" W 0.0 m / 0.0 ft 60.96 m / 200.0 ft

Antenna Model Antenna Mode

SeaTel 2.4 meter

Interference Objectives: Long Term

Receive 4.0 GHz

Transmit 6.1 GHz

-156.0 dBW/MHz 20% 0.01% -151.8 dBW/4 kHz

20% 0.0025%

Short Term

-146.0 dBW/MHz

-130.8 dBW/4 kHz

-19.1 (dBW/4 kHz)

Max Available RF Power

|             |               |                    | Receive    | e 4.0 GHz     | Transn         | nit 6.1 GHz   |
|-------------|---------------|--------------------|------------|---------------|----------------|---------------|
|             | Horizon       | Antenna            | Horizon    | Coordination  | Horizon        | Coordination  |
| Azimuth (°) | Elevation (°) | Discrimination (°) | Gain (dBi) | Distance (km) | Gain (dBi)     | Distance (km) |
| 190         | 0.00          | 56.52              | -10.00     | 285.28        | -10.00         | 118.87        |
| 195         | 0.00          | 54.63              | -10.00     | 285.28        | -10.00         | 118.87        |
| 200         | 0.00          | 52.17              | -10.00     | 285.28        | -10.00         | 118.87        |
| 205         | 0.00          | 49.24              | -10.00     | 285.28        | -10.00         | 118.87        |
| 210         | 0.00          | 45.96              | -9.56      | 288.10        | -9 <i>.</i> 56 | 120.01        |
| 215         | 0.00          | 42.40              | -8.68      | 293.79        | -8.68          | 122.29        |
| 220         | 0.00          | 38.64              | -7.68      | 300.49        | -7.68          | 124.93        |
| 225         | 0.00          | 35.04              | -6.62      | 307.72        | -6.62          | 127.73        |
| 230         | 0.00          | 31.77              | -5.55      | 315.78        | -5.55          | 130.56        |
| 235         | 0.00          | 28.94              | -4.54      | 322.99        | -4.54          | 133.28        |
| 240         | 0.00          | 26.69              | -3.66      | 329.32        | -3.66          | 134.42        |
| 245         | 0.00          | 25.18              | -3.03      | 333.93        | -3.03          | 136.19        |
| 250         | 0.00          | 24.55              | -2.75      | 335.95        | -2.75          | 136.98        |
| 255         | 0.00          | 24.86              | -2.89      | 334.94        | -2.89          | 136.58        |
| 260         | 0.00          | 26.09              | -3.41      | 331.12        | -3.41          | 135.11        |
| 265         | 0.00          | 28.10              | -4.22      | 325.26        | -4.22          | 134.14        |
| 270         | 0.00          | 30.76              | -5.20      | 318.27        | -5.20          | 131.50        |
| 275         | 0.00          | 33.90              | -6.25      | 310.23        | -6.25          | 128.69        |
| 280         | 0.00          | 37.40              | -7.32      | 302.89        | -7.32          | 125.86        |
| 285         | 0.00          | 41.17              | -8.36      | 295.90        | -8.36          | 123.12        |
| 290         | 0.00          | 45.14              | -9.36      | 289.36        | -9.36          | 120.52        |
| 295         | 0.00          | 49.26              | -10.00     | 285.28        | -10.00         | 118.87        |
| 300         | 0.00          | 53.49              | -10.00     | 285.28        | -10.00         | 118.87        |
| 305         | 0.00          | 57.81              | -10.00     | 285.28        | -10.00         | 118.87        |
| 310         | 0.00          | 62.20              | -10.00     | 285.28        | -10.00         | 118.87        |
| 315         | 0.00          | 66.64              | -10.00     | 285.28        | -10.00         | 118.87        |
| 320         | 0.00          | 71.11              | -10.00     | 285.28        | -10.00         | 118.87        |
| 325         | 0.00          | 75.62              | -10.00     | 285.28        | -10.00         | 118.87        |
| 330         | 0.00          | 80.14              | -10.00     | 285.28        | -10.00         | 118.87        |
| 335         | 0.00          | 84.68              | -10.00     | 285.28        | -10.00         | 118.87        |
| 340         | 0.00          | 89.23              | -10.00     | 285.28        | -10.00         | 118.87        |
| 345         | 0.00          | 93.78              | -10.00     | 285.28        | -10.00         | 118.87        |
| 350         | 0.00          | 98.32              | -10.00     | 285.28        | -10.00         | 118.87        |
| 355         | 0.00          | 102.85             | -10.00     | 285.28        | -10.00         | 118.87        |
|             |               |                    |            |               |                |               |

### 5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY:

Gary K. Edwards Senior Manager COMSEARCH 19700 Janelia Farm Boulevard Ashburn, VA 20147

DATED: <u>January 07, 2016</u>

Date & Time Filed: Jan 12 2016 12:04:16:570PM File Number: SES-MFS-20160112-00006

### 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: Modification to Add Permitted List as POC (E080138)

1-8. Legal Name of Applicant

Name:

Harris CapRock Communications, Inc.

Phone Number: Fax Number:

832-668-2753 832-668-2780

DBA

Name:

4400 S. Sam Houston Parkway Ea

E-Mail:

ellenann.sands@harris.com

Street: City:

Houston

State:

TX

Country:

**USA** 

Zipcode:

77048 -

Attention: Ms. EllenAnn Sands

9-16. Name of Contact Representative

Name:

Carlos Nalda

Phone Number:

571-332-5626

Company: LMI Advisors

Fax Number:

cnalda@lmiadvisors.com

Street: City:

Springfield

8601 James Creek Drive

E-Mail: State:

VA

Country:

**USA** 

Zipcode:

22152=

Attention: Mr. Carlos M. Nalda

Relationship:

Other

### 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 O a2. Space Station (N/A) b1. Application for License of New Station

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

- O b3. 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.

19. If this filing is an amendment to a pending application enter both fields, if this filing is a modification

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).

- O Governmental Entity O 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:

please enter only the file number:

(b) File number:

(a) Call sign of station: E080138

(a) Date pending application was filed:

SESLIC2008060700716

### TYPE OF SERVICE

|  | THE OF SERVICE   |  |  |  |  |  |
|--|--|--|--|--|--|--|
| 20. NATURE OF SERVICE: This filing is for an authorization to provide 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)  |  |  |  |  |  |  |
| Brown (press sports)   | OO TS - at - asi - a - 1: - a - 1 - 1 - 1 - 1 - 1 - 1 - 1  |  |  |  |  |  |
| 21. STATUS: Choose the button next to the applicable status. Choose only one.  | 22. If earth station applicant, check all that apply.  Using U.S. licensed satellites  |  |  |  |  |  |
| Common Carrier Non-Common Carrier  | Substitution of the state of th |  |  |  |  |  |
|  | <u> </u>   |  |  |  |  |  |
| 23. If applicant is providing INTERNATIONAL COMMON CARRIER service,  |  |  |  |  |  |  |
| Connected to a Public Switched Network Not connected to a Public Swit  |  |  |  |  |  |  |
| 24. FREQUENCY BAND(S): Place an 'X' in the box(es) next to all applicable for  | requency band(s).  |  |  |  |  |  |
| <b>⊠</b> a. C-Band (4/6 GHz)   |  |  |  |  |  |  |
| C.Other (Please specify upper and lower frequencies in MHz.)   |  |  |  |  |  |  |
| Frequency Lower: Frequency Upper: (Please specify additional frequency   |  |  |  |  |  |  |
| TYPE OF  | STATION  |  |  |  |  |  |
| 25. CLASS OF STATION: Choose the button next to the class of station that app  | plies. Choose only one.  |  |  |  |  |  |
| a. Fixed Earth Station   |  |  |  |  |  |  |
| O b. Temporary-Fixed Earth Station   |  |  |  |  |  |  |
| c. 12/14 GHz VSAT Network  |  |  |  |  |  |  |
| O d. Mobile Earth Station  |  |  |  |  |  |  |
| • e. Geostationary Space Station   |  |  |  |  |  |  |
| o f. Non-Geostationary Space Station   |  |  |  |  |  |  |
| O 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 N   | ODIFICATION  |  |  |  |  |  |
| 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 & countries)  |  |  |  |  |  |  |
| ☐ j authorization to change Points of Communication (satellites & countries)   |  |  |  |  |  |  |
| □ 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   |  |  |  |  |  |  |
| 28. Would a Commission grant of any proposal in this application or amendmen   |  |  |  |  |  |  |

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

O Yes O No

aeronautical fixed radio station services are not required to respond to Items 30-34.

± o<sub>y</sub>

| actoriautical fixed radio station services are not required to respond to items 30-  | 'JT.                             |
|--|----------------------------------|
| 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?   | O Yes O No ⊗ N/A                 |
| 31. Is the applicant a corporation organized under the laws of any foreign government?   | O Yes O 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?  | O Yes O No ⊗ 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?   | O Yes O 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.   | 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.   | ○ 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 ● 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.   | ● Yes ○ 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 O No                       |
| 42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, what admin in the process of coordinating the space station? Permitted List   | nistration has coordinated or is |
| 43. Description. (Summarize the nature of the application and the services to be provided). Harris CapRock seeks to mod fixed earth station license (Call Sign E080138) by adding 'Permitted List' as an authorized point of commod Narrative). Narrative Statement  |                                  |
| 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.   | <b>●</b> 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 <sub>B</sub>                   |
| 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. | О <sub>С</sub>                   |

| > |
|---|
|---|

Location of Earth Station Site

E1: Site Identifier:

E2: Contact Name

BHP Shenzi

NOC

### **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.

| porter, and are made in good fain.  |   |
|---|---|
| 44. Applicant is a (an): (Choose the button next to applicat  | e response.)                              |
| <ul> <li>Individual</li> <li>Unincorporated Association</li> <li>Partnership</li> <li>Corporation</li> <li>Governmental Entity</li> <li>Other (please specify)</li> </ul> |   |
| 45. Name of Person Signing<br>EllenAnn Sands  | 46. Title of Person Signing Legal Counsel |

WILLFUL FALSE STATEMENTS MADE ON THIS FORM ARE PUNISHABLE BY FINE AND / OR IMPRISONMENT (U.S. Code, Title 18, Section 1001), AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, Section 312(a)(1)), AND/OR 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

E5. Call Sign:

E6. Phone Number:

E080138

832-668-2775

| E3. Street:  | Guir of Mexico                  | E7. City:                         |                       |       |                 | ****             |
|--|---------------------------------|-----------------------------------|-----------------------|-------|-----------------|------------------|
|  |                                 | E8. County:                       |                       |       |                 |                  |
| E4. State  |                                 | E9. Zip Code                      |                       |       |                 | 100              |
| E10. Area of Operation:  |                                 | Gulf of Mexico                    |                       |       |                 |                  |
| E11. Latitude:   | 27 ° 18 ' 2.2 " N               |                                   |                       |       |                 |                  |
| E12. Longitude:  | 90 ° 8 ' 6.0 " W                |                                   |                       |       |                 |                  |
| E13. Lat/Lon Coordinates are:  |                                 | ONAD-27                           | <b>◎</b> NAD-83       |       | ٥N              | /A               |
| E14. Site Elevation (AMSL): 61.0 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. |                                 |                                   |                       |       | ● No            | o <sub>N/A</sub> |
| 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 <sub>No</sub> | ● N/A            |
| E17. Is the facility operated by   | remote control? If YES, provide | the location and telephone number | of the control point. | • Yes | 0               | No               |
| E18. Is frequency coording   | nation required? If YES, att    | tach a frequency coordination     | report as             | • 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               | No               |
| of coordination contours as 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?  |                                 |                                   |                       |       | •               | No               |

### FAILURE TO COMPLY WITH 47 CFR PARTS 17 AND 25 WILL RESULT IN THE RETURN OF THIS APPLICATION. POINTS OF COMMUNICATION Satellite Name: PERMITTED LIST | If you selected OTHER, please enter the following: E22. ITU Name: E21. Common Name: E24. Country: E23. Orbit Location: POINTS OF COMMUNICATION (Destination Points) E25. Site Identifier: BHP Shenzi E26. Common Name: E27. Country: USA ANTENNA E32. E28. E29. E30. E31. E41/42. Antenna Gain Transmint and/or Site ID Antenna Manufacturer Model Recieve( \_dBi at \_ GHz) Antenna Id **Quantity** Size BHP 9797 0.0 dBi at Seatel9797 Sea Tel 2.4 Shenzi E37. Building E38. Total E39. Maximum E28. E35. Above E36. Above E40. Total Height Above Antenna Height **Input Power** E33/34. Diameter EIRP for al Antenna Ground Sea Ground Above Minor/Major(meters) at antenna Id Level(meters) Level(meters) carriers(dBW) Level(meters) | flange(Watts) | Rooftop(meters) 49.0 0.0 20.0 0.0 Seate19797 0.0/0.0 0.0 60.1 FREQUENCY E49. Maximum ERIP E47. E48. Maximum E28. E43/44. E45. E46. Antenna T/R Emission EIRP per Density per Antenna Frequency Polarization(H,V,L,R) Carrier(dBW/4kHz) Designator Carrier(dBW) Id Bands(MHz) Mode E50. Modulation and Services FREQUENCY COORDINATION E58. E56. E57. E59. Earth Earth E54/55. Range Antenna Antenna E60. Maximum E28. E52/53. Station Station E51. Satellite of Satellite Arc **Elevation** Elevation **EIRP Density** Frequency Azimuth **Azimuth** Antenna Angle Angle toward the **Orbit Type** Eastern/Western Id Limits(MHz) Angle Angle Horizon(dBW/4kHz) Limit Eastern Western Western Eastern Limit Limit Limit Limit 44.0 250.8 24.5 0.0 Seatel9797 Geostationary 3700 4200 60.0/143.0 128.3 44.0 250.8 24.5 -21.85 Geostationary 5925 6425 60.0/143.0 128.3 REMOTE CONTROL POINT LOCATION E66. Phone Number E61. Call Sign 832-668-2775 E030253 NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed. E62. Street Address 4400 S. Sam Houston Pkwy. E E63. City E68. County E67/68. State/Country E64. Zip Code

### FCC NOTICE REQUIRED BY THE PAPERWORK REDUCTION ACT

Houston

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.

Harris

TX/USA

77046

Remember - You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection, unless it displays a currently valid OMB control number or if we fail to

provide you with this notice. This collection has been assigned an OMB control number of 3060-0678.

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.

## Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

| In the Matter of  |       |                                |
|---|-------|--------------------------------|
| Application of Harris CapRock<br>Communications, Inc. for Modification of<br>Fixed Earth Station License to Add<br>Permitted List Authority | ) ) ) | File No:<br>Call Sign: E080138 |

### **Earth Station License Modification Application**

By this application, Harris CapRock Communications, Inc. ("Harris CapRock") seeks to modify its existing C-band fixed earth station license (Call Sign E080138) by adding "Permitted List" as an authorized point of communication for the earth station terminal. The subject terminal – a Sea Tel Model 9797– is located on the BHP Shenzi, an offshore oil platform located in the Gulf of Mexico (27° 18' 2.2" N, 90° 8' 6.0" W). Presently under the license, the terminal is authorized to communicate with certain satellite points of communication and this modification seeks to expand communications to include satellites on the Commission's Permitted Space Station List. The requested modification will afford Harris CapRock additional operational flexibility and allow it to obtain more reliable and cost-effective satellite services on the offshore platform, where reliable broadband connectivity is critical for operational, safety and other reasons.

In seeking Permitted List authority, Harris CapRock requests authority to operate the earth station terminal with any U.S. licensed satellite and non-U.S. licensed satellite on the Commission's Permitted Space Station List. Accordingly, Harris CapRock also seeks to widen the range of satellite arc currently in the license to 60° W.L. to 143° W.L., which will slightly modify the maximum EIRP towards the horizon value, as well as the azimuth and elevation angles, as indicated in the Schedule B. Harris CapRock certifies that the remaining technical information in its earth station license and associated application<sup>1</sup> remains unchanged.

<sup>&</sup>lt;sup>1</sup> See File No. SES-LIC-20080607-00716 (Call Sign E080138).

A frequency coordination analysis was conducted by Comsearch and demonstrates that Harris CapRock may operate the Sea Tel 9797 earth station terminal over the proposed satellite arc range and will not cause harmful interference. Comsearch sent a coordination notice to existing licensees in the band within relevant coordination distances and no objections have been received from incumbent licensees. Accordingly, Harris CapRock's proposed operations are fully compatible with other FCC-licensed operations.<sup>2</sup> The requested modification will serve the public interest by enhancing Harris CapRock's satellite communication capabilities on the BHP Shenzi, thereby improving the critical services its provides to crew members for business and emergency operations.

Accordingly, Harris CapRock respectfully requests that the Commission grant its application to modify its existing C-band earth station license, Call Sign E080138, by adding Permitted List authority to allow the terminal to communicate with satellites on the Commission's Permitted Space Station List.

<sup>&</sup>lt;sup>2</sup> Please note that potentially affected licenses may respond to Comsearch by January 19, 2016, but Comsearch's analysis suggests that there will be no impact to such licensees by the operations proposed herein. To the extent that a potentially affected licensee contacts Comsearch regarding the proposed operations, Harris CapRock will inform the Commission and amend its application to the extent necessary to address the concerns of the affected licensees.

## Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

| In the Matter of                             |                    |
|--|--------------------|
| Application of Harris CapRock Corporation    | )                  |
| for a Special Temporary Authorization to     | File No:           |
| Operate a Fixed Earth Station Terminal with  | )                  |
| Permitted List Satellites in the 5.925-6.425 | Call Sign: E080138 |
| GHz (Earth-to-space) and 3.7-4.2 GHz         | -                  |
| (space-to-Earth) Frequency Bands             | )                  |
| ,  | )                  |

### **Application for Special Temporary Authorization**

Pursuant to Section 25.120 of the Rules and Regulations of the Federal Communications Commission (the "Commission Rules"), 47 C.F.R. § 25.120, Harris CapRock Corporation ("Harris CapRock") seeks a special temporary authorization ("STA") to operate its licensed Sea Tel Model 9797 C-band terminal on the BHP Shenzi – an offshore oil platform located in the Gulf of Mexico (27° 18' 2.2" N, 90° 8' 6.0" W) – while communicating with satellites on the Commission's Permitted Space Station List ("Permitted List"). Presently under the license, the terminal is authorized to communicate with certain satellite points of communication in the C-band.

The requested STA will afford Harris CapRock short-term operating authority during the pendency of its concurrently filed modification application<sup>1</sup> to add Permitted List authority. Grant of the requested STA is essential to ensure that there is no lapse in essential satellite-based services to the oil platform in the context of an upcoming change in serving satellite capacity scheduled for late January/early February 2016. Harris CapRock seeks an STA for a period of up to 60 days, commencing no later than January 20, 2016.

<sup>&</sup>lt;sup>1</sup> See Application of Harris CapRock Communications, Inc. for Modification of Fixed Earth Station License to Add Permitted List Authority, Call Sign E080138 ("Modification Application").

### I. DISCUSSION

Harris CapRock requests authority to operate the earth station terminal with U.S. licensed satellite and non-U.S. licensed satellites on the Commission's Permitted Space Station List. Accordingly, Harris CapRock also seeks to widen the range of satellite arc currently in the license to 60° W.L. to 143° W.L., which will slightly modify the maximum EIRP towards the horizon value, as well as the azimuth and elevation angles, as indicated in the modification application. Harris CapRock certifies that the remaining technical information in its earth station license and associated application<sup>2</sup> remains unchanged.

A frequency coordination analysis was conducted by Comsearch and demonstrates that Harris CapRock may operate the Sea Tel 9797 earth station terminal over the proposed arc range without causing harmful interference. Comsearch sent a coordination notice to existing licensees in the band within the relevant coordination distances and no objections have been received from incumbent licensees. Accordingly, Harris CapRock's proposed operations are fully compatible with other FCC-licensed operations.<sup>3</sup> The requested STA will serve the public interest by enhancing Harris CapRock's satellite communication capabilities on the BHP Shenzi in the near-term, thereby improving the critical services its provides to crew members for business and emergency operations.

### III. EXPEDITED CONSIDERSATION

Harris CapRock respectfully requests expedited processing of this STA request under Section 25.120. Section 25.120(a) provides that STA requests should be filed at least three working days prior to the date of commencement of the proposed operations. Here, Harris CapRock seeks to commence operations on or after January 20, 2016.

Pursuant to Section 25.120(b)(3), Harris CapRock is filing for 60-day STA to

<sup>&</sup>lt;sup>2</sup> See File No. SES-LIC-20080607-00716 (Call Sign E080138).

<sup>&</sup>lt;sup>3</sup> Please note that potentially affected licenses may respond to Comsearch by January 19, 2016, but Comsearch's analysis suggests that there will be no impact to such licensees by the operations proposed herein. To the extent that a potentially affected licensee contacts Comsearch regarding the proposed operations, Harris CapRock will inform the Commission and adjust its operations accordingly to address the concerns of the relevant licensees.

ensure proper short-term authorizations during the pendency of its earth station modification application. Section 25.120(b)(3) provides that the Commission may grant STA for a period not to exceed 60 days if it has not placed the STA request on public notice and the applicant plans to file a request for regular authority for the service. Here, Harris CapRock has concurrently filed a request to modify its license to add Permitted List authority.<sup>4</sup>

Due to a change in satellite capacity, Harris CapRock requires near-term use of Permitted List satellites to accommodate the capacity adjustment and ensure there is no lapse in vital satellite communication services. Given the near-term commencement of the proposed operations and that they have been fully coordinated, expedited processing of this STA request is warranted and will ensure properly authorized temporary operations while the Commission reviews Harris CapRock's modification application.

Grant of the requested authority will serve the public interest by allowing the near-term use of the terminal on the BHP Shenzi to communicate with Permitted List satellites, which will greatly benefit employees and personnel and accelerate the expansion of C-band satellite communications services. Accordingly, Harris CapRock respectfully submits that the public interest will be served by grant of the requested STA no later than January 20, 2016.

### IV. CONCLUSION

In view of the foregoing, Harris CapRock respectfully requests that the Commission grant its 60-day STA request to allow the Sea Tel 9797 terminal to communicate with satellites on the Permitted List in the C-band on the BHP Shenzi no later than January 20, 2016.

<sup>&</sup>lt;sup>4</sup> See Modification Application.