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Callsign/Satellite ID:

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:

DHS – 4.8 Meter Earth Station

| 1–8. Legal Name of Appli | icant |
|--------------------------|-------|
|--------------------------|-------|

Name: Knight Sky Consulting and Phone Number: 301–428–5400

Associates

DBA Fax Number: 301–428–5436

Name:

Street: 22300 Comsat Drive **E–Mail:** george.

knizewski@knightskyconsulting.

com

City: Clarksburg State: MD

Country: USA Zipcode: 20871 -

Attention: Mr. George Knizewski

9–16. Name of Contact Representative

Name: Mr. George Knizewski Phone Number: 301–428–5400

Company: Knight Sky Consulting **Fax Number:** 301–428–5436

Street: 22300 Comsat Drive **E–Mail:** george.

knizewski@knightskyconsulting.

com

City: Clarksburg State: MD

Country: USA Zipcode: 20871–

Attention: Mr. George Knizewski Relationship: Same

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.

a.

a1. Earth Station

(N/A) a2. Space Station

b.

b1. Application for License of New Station

b2. Application for Registration of New Domestic Receive-Only Station

(N/A) b3. Amendment to a Pending Application

(N/A) b4. Modification of License or Registration

(N/A) b5. Assignment of License or Registration

(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

b10. Other (Please specify)

o 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.

| 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 BGV – Fixed Satellit | e VSAT System | | | |
| 18. If this filing is in reference to an existing station, enter: (a) Call sign of station: | 19. If this filing is an amendment to a pending (a) Date pending application was filed: | ng application enter: (b) File number of pending application: | | |
| Not Applicable | Not Applicable | Not Applicable | | |
| TYPE OF SERVICE | | | | |
| 20. NATURE OF SERVICE: This filing i | s for an authorization to provide or use the follow | wing 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: | | | | | |
| 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 ap | oplicable 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: Frequency Upper: | | | | | |
| 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 | | | | | |
| o b. Temporary–Fixed Earth Station | b. Temporary–Fixed Earth Station | | | | |
| 👝 c. 12/14 GHz VSAT Network | | | | | |
| d. Mobile Earth Station | | | | | |
| (N/A) e. Geostationary Space Station | | | | | |
| (N/A) f. Non–Geostationary Space Station | | | | | |
| g. Other (please specify) | | | | | |
| 26. TYPE OF EARTH STATION FACILITY: Choose only one. Transmit/Receive Transmit-Only Receive-Only N/A | | | | | |
| Transmitteeerive of Transmit only of Receive only of 1971 | | | | | |

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 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. | Yes No Radiation Report |
| ALIEN OWNERSHIP Earth station applicants not proposing to provide broadcast, common carrier, aeronateronautical fixed radio station services are not required to respond to Items 30–34. | autical en route or |
| 29. Is the applicant a foreign government or the representative of any foreign government? | O Yes O No |
| 30. Is the applicant an alien or the representative of an alien? | O Yes O No O N/A |
| | |

| | | | | ~ | 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? | Yes | 0 | No , | ¹ • | √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? | Yes | 0 | No i | 1 © | √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. | 0 | Yes | • | N | 0 |

| 36. Has the applicant or any party to this application or amendment had any FCC station authorization or license revoked or had any application for an initial, modification or renewal of FCC station authorization, license, or construction permit denied by the Commission? If Yes, attach as an exhibit, an explination of circumstances. | O Yes | ⊚ No |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------------|
| 37. Has the applicant, or any party to this application or amendment, or any party directly or indirectly controlling the applicant ever been convicted of a felony by any state or federal court? If Yes, attach as an exhibit, an explination of circumstances. | O Yes | 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 | 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. | ○ Yes | ⊚ No |
| 42b. What administration has licensed or is in the process of licensing the space station? If no license will be issued, w coordinated or is in the process of coordinating the space station? | hat administr | ation 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.)

This is an application for a new VSAT network. This network includes a hub station which includes two variants of fly away remote VSAT units. The 1.0m will operate within CONUS, the 1.2m will operate within CONUS, AL, HI, PR, and VI. The hub and all remotes will operate with US licensed Satellite (ALSAT). Services include TDM/TDMA IP Data.

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.

| | ndersigned, individually and for the applicant, hereby certifies that all statements made in this application and in all attached exhibits are complete and correct to the best of his or her knowledge and belief, and are made in good faith. |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 44. Aj | oplicant is a (an): (Choose the button next to applicable response.) |
| O I | ndividual |
| O U | Unincorporated Association |
| O P | Partnership |
| ® (| Corporation |
| 0 | Sovernmental Entity |
| 0 | Other (please specify) |
| | |
| | |

| 45. Name of Person Signing Mr. George P. Knizewski | | 46. Title of Person Sign President | ning |
|-------------------------------------------------------|-----------------------|---------------------------------------|---------------------------------------------------------------------------------------|
| 47. Please supply any need attachments. | | | |
| Attachment 1: | Attachment 2: | | Attachment 3: |
| | | | |
| ((1221 02 11122 0111121121 (10 1) | tion 1001), AND/OR RI | EVOCATION OF ANY S | Y FINE AND / OR IMPRISONMENT STATION AUTHORIZATION ode, 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: HUB E5. Call Sign:

E2: Contact Name Mr. George E6. Phone 301–428–5400

Knizewski Number:

E3. Street: 3801 Nebraska E7. City: Washington

Ave.

E8. County: USA

E4. State DC E9. Zip Code 20016

E10. Area of Operation: CONUS, AK, HI, PR, VI

E11. Latitude: 38 °56 '17.0 "N

E12. Longitude: 77 °4 '55.0 "W

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

E14. Site Elevation (AMSL): 113.0 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. | • , | Yes | O No | O 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? | 0, | Yes | O No | ● N/A |
| E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point. | 0 | Yes | • | No |
| | | | | |
| E18. Is frequency coordination required? If YES, attach a frequency coordination report as | 0 | Yes | • | 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 | • | 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. | | Yes | • | No |
| POINTS OF COMMUNICATION | | | | |
| Satellite Name: GALAXY 10R GALAXY 10R 123 W.L. If you selected OTHER, please enter the following: | | | | |

| E21. Common Name: | E22. ITU Name: |
|-------------------------------|----------------|
| E23. Orbit Location: | E24. Country: |
| DODUTE OF COMMUNICATION (D D) | |

POINTS OF COMMUNICATION (Destination Points)

| E25. Site Identifier: HUB | |
|---------------------------|-------------------|
| E26. Common Name: | E27. Country: USA |

ANTENNA

| Site ID | E28. Antenna Id | E29. Quantity | E30. Manufacturer | E31. Model | E32. Antenna Size <meters></meters> | E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz) |
|---------|-----------------|---------------|---------------------------|------------|----------------------------------------|----------------------------------------------------------|
| HUB | HUB-A | 1 | Vertex/RSI (GD SATCOM) | 4.8m KPK | 4.8 | 53.3 dBi at 11.725 |
| | | | | | | 54.6 dBi at 14.125 |

| Id | Diameter | E35. Above Ground Level (meters) | (meters) | Height Above Ground | Input Power at antenna flange | Maximum Antenna Height | E40. Total EIRP for al carriers (dBW) |
|-------|----------|-----------------------------------------------|----------|------------------------|-----------------------------------|---------------------------|----------------------------------------------------|
| HUB-A | 0.0/0.0 | 4.0 | 117.0 | 0.0 | 1.05 | 0.0 | 53.3 |

FREQUENCY

| E28. Antenna Id | E43/44. | E45. T/R Mode | E46. Antenna | E47. Emission | E48. Maximum | E49. Maximum |
|-----------------|-----------------|---------------|-------------------|---------------|------------------|------------------|
| | Frequency Bands | | Polarization(H,V, | Designator | EIRP per Carrier | ERIP Density per |
| | (MHz) | | L,R) | | (dBW) | Carrier |
| | | | | | | (dBW/4kHz) |
| | | | | | | (ub W/4KIIZ) |

| HUB-A | 11700.000 12200.000 | R | Horizontal | 1M00G7D | 0.0 | 0.0 |
|----------------------------------------|-------------------------|-------------------------|-----------------------|------------------------|-----------------------|-------------------|
| E50. Modulation entirety.) | and Services (If the | ne complete description | on does not appear in | this box, please go to | the end of the form | to view it in its |
| QPSK, TDM/ | TDMA, Data | | | | | |
| HUB-A | 14000.000 145000.000 | Т | Vertical | 1M00G7D | 53.3 | 29.3 |
| E50. Modulation entirety.) QPSK, TDM, | | ne complete description | on does not appear in | this box, please go to | o the end of the form | to view it in its |

FREQUENCY COORDINATION

| E28. Antenna Id | E51. Satellite Orbit Type | E52/53. Frequency Limits(MHz) | | E56. Earth Station Azimuth Angle Eastern Limit | E57. Antenna Elevation Angle Eastern Limit | Station Azimuth Angle | E59. Antenna Elevation Angle Western Limit | E60. Maximum EIRP Density toward the Horizon (dBW/4kHz) |
|--------------------|------------------------------|-------------------------------------|-------------|------------------------------------------------------------|--------------------------------------------------------|-----------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|
| HUB-A | Geostationary | 11700.000 12200.000 | 58.0/ 148.0 | 162.1 | 40.7 | 257.7 | 6.2 | 0.0 |

| | Geostationary | 14000.000 14500.000 | 58.0/ 148.0 | 162.1 | 40.7 | 257.7 | 6.2 | -14.04 |
|------------|-------------------------|------------------------|-------------|--------|--------------|------------------------|-----|---------------|
| REMOTE C | <u> </u> ONTROL POIN | T LOCATION | 1 | | | | | |
| E61. Call | Sign | | | | E65. Phone N | umber | | |
| | ease enter the calls | | | ot the | | | | |
| E62. Stree | t Address | | | | | | | |
| | | | | | | | | |
| E63. City | | | E67. Coun | ty | | E64/68. State/Count | ry | E66. Zip Code |

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: REMOTE 1 E5. Call Sign:

E2: Contact Name Mr. George E6. Phone 301–428–5400

Knizewski Number:

E3. Street: CONUS, AK, HI, E7. City:

PR, VI

E8. County:

E4. State E9. Zip Code

E10. Area of Operation: CONUS

E11. Latitude: 0 °0 '0.0 "

E12. Longitude: 0 °0 '0.0 "

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

E14. Site Elevation (AMSL): 0.0 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. | ● Y | les . | O No | (| O 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? | O | les | O No | (| N/A |
| E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point. | 0 | Yes | • | N | 10 |
| E10 Is for successive discretion as a similar discreti | | | | | |
| E18. Is frequency coordination required? If YES, attach a frequency coordination report as | 0 | Yes | • | N | 10 |
| E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as | 0 | Yes | • | N | 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. | | Yes | • | N | 10 |
| POINTS OF COMMUNICATION | | | | | |
| Satellite Name: GALAXY 10R GALAXY 10R 123 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: REMOTE 1 | |
|--------------------------------|-------------------|
| E26. Common Name: | E27. Country: USA |

ANTENNA

| Site ID | E28. Antenna Id | E29. Quantity | E30. Manufacturer | E31. Model | | E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz) |
|----------|-----------------|---------------|----------------------|-----------------|-----|----------------------------------------------------------|
| REMOTE 1 | REMOTE 1A | 1 | GCS | 1.2m Hawkeye II | 1.2 | 41.7 dBi at 11.950 |
| | | | | | | 43.2 dBi at 14.250 |

| Id | Diameter | E35. Above Ground Level (meters) | (meters) | Height Above Ground Level | Input Power at antenna flange | Maximum Antenna Height | E40. Total EIRP for al carriers (dBW) |
|-----------|----------|-----------------------------------------------|----------|-------------------------------------|-----------------------------------|---------------------------|----------------------------------------------------|
| REMOTE 1A | 0.0/0.0 | 0.0 | 0.0 | 0.0 | 3.23 | 0.0 | 47.7 |

FREQUENCY

| E28. Antenna Id | E43/44. | E45. T/R Mode | E46. Antenna | E47. Emission | E48. Maximum | E49. Maximum |
|-----------------|-----------------|---------------|-----------------------|---------------|------------------|------------------|
| | Frequency Bands | | Polarization(H,V, | Designator | EIRP per Carrier | ERIP Density per |
| | (MHz) | | L , R) | | (dBW) | Carrier |
| | | | | | | (dBW/4kHz) |

| REMOTE 1A | 11700.000 12200.000 | R | Horizontal | 1M00G7D | 0.0 | 0.0 |
|----------------------------------------|---------------------------------|-------------------------|-----------------------|------------------------|-----------------------|-------------------|
| E50. Modulation entirety.) | and Services (If the | he complete description | on does not appear in | this box, please go to | o the end of the form | to view it in its |
| QPSK, TDM, | DATA | | | | | |
| REMOTE 1A | 14000.000 14500.000 | Т | Vertical | 1M00G7D | 47.7 | 23.7 |
| E50. Modulation entirety.) QPSK, TDM/ | and Services (If the TDMA, DATA | he complete description | on does not appear in | this box, please go to | o the end of the form | to view it in its |

FREQUENCY COORDINATION

| E28. Antenna Id | E51. Satellite Orbit Type | E52/53. Frequency Limits(MHz) | | E56. Earth Station Azimuth Angle Eastern Limit | E57. Antenna Elevation Angle Eastern Limit | E58. Earth Station Azimuth Angle Western Limit | E59. Antenna Elevation Angle Western Limit | E60. Maximum EIRP Density toward the Horizon (dBW/4kHz) |
|--------------------|------------------------------|-------------------------------------|-------------|------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|
| REMOTE 1A | Geostationary | 11700.000 12200.000 | 58.0/ 148.0 | 90.0 | 5.0 | 270.0 | 5.0 | 0.0 |

| | Geostationary | 14000.000 14500.000 | 58.0/ 148.0 | 90.0 | 5.0 | 270.0 | 5.0 | -7.97 | | |
|----------------------------------|------------------------------------------|------------------------|-------------|--------|-----|--------------------------|-----|---------------|--|--|
| REMOTE C | ONTROL POIN | T LOCATION | 1 | | | | | | | |
| E61. Call Sign E65. Phone Number | | | | | | | | | | |
| | ease enter the calls hich this applicati | | | ot the | | | | | | |
| E62. Stree | t Address | | | | | | | | | |
| | | | | | | | | | | |
| E63. City | | | E67. Coun | ty | | E64/68. State/Country | ry | E66. Zip Code | | |

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: REMOTE 2 E5. Call Sign:

E2: Contact Name Mr. George E6. Phone 301–428–5400

Knizewski Number:

E3. Street: CONUS E7. City:

E8. County:

E4. State E9. Zip Code

E10. Area of Operation: CONUS

E11. Latitude: 0 °0 '0.0 "

E12. Longitude: 0 °0 '0.0 "

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

E14. Site Elevation (AMSL): 0.0 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. | ● Y | les . | O No | (| O 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? | O | les | O No | (| N/A |
| E17. Is the facility operated by remote control? If YES, provide the location and telephone number of the control point. | 0 | Yes | • | N | 10 |
| E10 Is for successive discretion as a similar discreti | | | | | |
| E18. Is frequency coordination required? If YES, attach a frequency coordination report as | 0 | Yes | • | N | 10 |
| E19. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as | 0 | Yes | • | N | 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. | | Yes | • | N | 10 |
| POINTS OF COMMUNICATION | | | | | |
| Satellite Name: GALAXY 10R GALAXY 10R 123 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: REMOTE 2 | | | | | | |

| E25. Site Identifier: REMOTE 2 | |
|--------------------------------|------------------|
| E26. Common Name: | E27. Country:USA |

ANTENNA

| Site ID | E28. Antenna Id | E29. Quantity | E30. Manufacturer | E31. Model | Size <meters></meters> | E41/42. Antenna GainTransmint and/or Recieve (dBi atGHz) |
|----------|-----------------|---------------|----------------------|-----------------|------------------------|----------------------------------------------------------|
| REMOTE 2 | REMOTE 2A | 1 | GCS | 1.0m Hawkeye V2 | 1.0 | 39.8 dBi at 11.950 |
| | | | | | | 41.5 dBi at 14.250 |

| Id | Diameter | E35. Above Ground Level (meters) | (meters) | Height Above Ground | Input Power at antenna flange | Maximum Antenna Height | E40. Total EIRP for al carriers (dBW) |
|-----------|----------|-----------------------------------------------|----------|------------------------|-----------------------------------|---------------------------|----------------------------------------------------|
| REMOTE 2A | 0.0/0.0 | 0.0 | 0.0 | 0.0 | 4.67 | 0.0 | 47.7 |

FREQUENCY

| E28. Antenna Id | E43/44. | E45. T/R Mode | E46. Antenna | E47. Emission | E48. Maximum | E49. Maximum |
|-----------------|-----------------|---------------|-----------------------|---------------|------------------|------------------|
| | Frequency Bands | | Polarization(H,V, | Designator | EIRP per Carrier | ERIP Density per |
| | (MHz) | | L , R) | | (dBW) | Carrier |
| | | | | | | (dBW/4kHz) |

| REMOTE 2A | 11700.000 12200.000 | R | Horizontal | 1M00G7D | 0.0 | 0.0 | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------|-----------------------|------------------------|-----------------------|-------------------|--|--|
| E50. Modulation entirety.) | and Services (If the | 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, TDM, | DATA | | | | | | | |
| REMOTE 2A | 14000.000 14500.000 | Т | Vertical | 1M00G7D | 47.7 | 23.7 | | |
| 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.) QPSK, TDM/TDMA, DATA | | | | | | | | |

FREQUENCY COORDINATION

| E28. Antenna Id | E51. Satellite Orbit Type | E52/53. Frequency Limits(MHz) | E54/55. Range of Satellite Arc E/W Limit | E56. Earth Station Azimuth Angle Eastern Limit | E57. Antenna Elevation Angle Eastern Limit | E58. Earth Station Azimuth Angle Western Limit | E59. Antenna Elevation Angle Western Limit | E60. Maximum EIRP Density toward the Horizon (dBW/4kHz) |
|--------------------|------------------------------|-------------------------------------|---------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------|
| REMOTE 2A | Geostationary | 11700.000 12200.000 | 58.0/ 148.0 | 90.0 | 5.0 | 270.0 | 5.0 | 0.0 |

| | Geostationary | 14000.000 14500.000 | 58.0/ 148.0 | 90.0 | | 5.0 | 270.0 | 5.0 | -6.27 | | | |
|-------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------|-------------|------|-----|----------------|--------------------------|-----|------------|--|--|--|
| REMOTE CO | REMOTE CONTROL POINT LOCATION | | | | | | | | | | | |
| E61. Call Si | gn | | | | E65 | . Phone Number | | | | | | |
| NOTE: Please enter the callsign of the controlling station, not the callsign for which this application is being filed. | | | | | | | | | | | | |
| E62. Street | Address | | | | | | | | | | | |
| | | | | | | | | | | | | |
| E63. City | | | E67. County | 7 | | | E64/68. State/Country | E66 | . Zip Code | | | |

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