



(REFERENCE COPY - Not for submission)

License To Cover for DTS Application

File Number: 0000093577 | Submit Date: 10/17/2023 | Call Sign: WUNF-TV | Facility ID: 69300 | FRN: 0001910066 |

State: North Carolina | City: ASHEVILLE

Service: DTS | Purpose: License To Cover 0000029742 | Status: Granted | Status Date: 12/19/2019 | Expiration Date: 12/01/2020 | Filing Status: Active

General Information

| Section     | Question                                                                             | Response |
|-------------|--------------------------------------------------------------------------------------|----------|
| Attachments | Are attachments (other than associated schedules) being filed with this application? | No       |

Fees, Waivers, and Exemptions

| Section | Question                                                                                                                                                                            | Response |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Waivers | Does this filing request a waiver of the Commission's rule(s)?                                                                                                                      | No       |
|         | Total number of rule sections involved in this waiver request:                                                                                                                      |          |
|         | Are the frequencies or parameters requested in this filing covered by grandfathered privileges, previously approved by waiver, or functionally integrated with an existing station? | No       |

**Applicant  
Information**

**Applicant Name, Type, and Contact Information**

| Applicant                                                                       | Address                                                              | Phone             | Email                | Applicant Type    |
|---------------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------|----------------------|-------------------|
| University of North Carolina<br>Doing Business As: University of North Carolina | PO Box 14900<br>Research Triangle Park,<br>NC 27709<br>United States | +1 (919) 549-7000 | fcc_notice@unctv.org | Government Entity |

**Authorization Holder Name**

Check box if the Authorization Holder name is being updated because of the sale (or transfer of control) of the Authorization(s) to another party and for which proper Commission approval has not been received or proper notification provided.

Contact  
Representatives  
(4)

| Contact Name                                                                                    | Address                                                                                         | Phone                 | Email                               | Contact Type                |
|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|-----------------------------|
| <b>Joseph Davis , P.E. .</b><br><i>Consulting Engineer</i><br>Chesapeake RF<br>Consultants, LLC | 207 Old Dominion Road<br>Yorktown, VA 23692<br>United States                                    | +1 (703) 650-<br>9600 | Joseph.Davis@RF-<br>consultants.com | Technical<br>Representative |
| <b>Stephen Hartzell</b><br>Brooks, Pierce et al.                                                | Stephen Hartzell<br>150 Fayetteville Street<br>Suite 1700<br>Raleigh, NC 27601<br>United States | +1 (919) 839-<br>0300 | shartzell@brookspierce.<br>com      | Legal<br>Representative     |
| <b>Donald W Smith</b><br>University of North<br>Carolina                                        | Donald Smith<br>PO Box 14900<br>Research Triangle Park,<br>NC 27709<br>United States            | +1 (919) 549-<br>7025 | dsmith@unctv.org                    | Technical<br>Representative |
| <b>Marcus W Trathen</b><br>Brooks, Pierce et al.                                                | Marcus Trathen<br>150 Fayetteville Street<br>Suite 1700<br>Raleigh, NC 27601<br>United States   | +1 (919) 839-<br>0300 | mtrathen@brookspierce.<br>com       | Legal<br>Representative     |

Alien Ownership

| Question                                                                                                                                                                                                                                                                                                                                                                  |  | Response |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------|
| 1) Is the applicant a foreign government or the representative of any foreign government as specified in Section 310(a) of the Communications Act?                                                                                                                                                                                                                        |  | No       |
| 2) Is the applicant an alien or the representative of an alien? (Section 310(b)(1))                                                                                                                                                                                                                                                                                       |  | No       |
| 3) Is the applicant a corporation, or non-corporate entity, that is organized under the laws of any foreign government? (Section 310(b)(2))                                                                                                                                                                                                                               |  | No       |
| 4) Is the applicant an entity of which more than one-fifth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any entity organized under the laws of a foreign country? (Section 310(b)(3))                                              |  | No       |
| 5) Is the applicant directly or indirectly controlled by any other entity of which more than one-fourth of the capital stock, or other equity or voting interest, is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any entity organized under the laws of a foreign country? (Section 310(b)(4)) |  | No       |
| 6) Has the applicant received a declaratory ruling(s) under Section 310(b)(4) of the Communications Act?                                                                                                                                                                                                                                                                  |  | No       |
| 7) In connection with this application, is the applicant filing a foreign ownership Petition for Declaratory Ruling pursuant to Section 310(b)(4) of the Communications Act?                                                                                                                                                                                              |  | No       |

Basic Qualifying Questions

| Section                      | Question                                                                                                                                                                                                           | Response |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Revoked Application          | Has the Applicant or any party to this application had any FCC station Authorization revoked or had any application for an initial, modification or renewal of FCC station Authorization denied by the Commission? | No       |
| State or Federal Convictions | 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?                                  | No       |

Channel and Facility Information

| Section                       | Question               | Response                                  |
|-------------------------------|------------------------|-------------------------------------------|
| Proposed Community of License | Facility ID            | 69300                                     |
|                               | State                  | North Carolina                            |
|                               | City                   | ASHEVILLE                                 |
|                               | DTS Channel            | 20                                        |
|                               | Designated Market Area | GREENVILLE-SPARTANBURG-ASHEVILLE-ANDERSON |
| Facility Type                 | Facility Type          | Noncommercial Educational                 |
|                               | Station Type           | Main                                      |
| Zone                          | Zone                   | 2                                         |

DTS Reference  
Point

| Section                                         | Question                                         | Response          |
|-------------------------------------------------|--------------------------------------------------|-------------------|
| Construction Permit File Number and Facility ID | File Number for Current Authorized Service Area: | BLEDT-20030401BAI |
|                                                 | Facility ID                                      | 69300             |
| Coordinates (NAD83)                             | Latitude                                         | 35° 13' 20.0" N+  |
|                                                 | Longitude                                        | 082° 32' 58.0" W- |

Site 1: Antenna  
Location Data

| Section                        | Question                                                        | Response                              |
|--------------------------------|-----------------------------------------------------------------|---------------------------------------|
| Antenna Structure Registration | Do you have an FCC Antenna Structure Registration (ASR) Number? | Yes                                   |
|                                | ASR Number                                                      | 1023079                               |
| Coordinates (NAD83)            | Latitude                                                        | 35° 13' 20.0" N+                      |
|                                | Longitude                                                       | 082° 32' 58.0" W-                     |
|                                | Structure Type                                                  | TOWER-A free standing or guyed struct |
|                                | Overall Structure Height                                        | 220.0 meters                          |
|                                | Support Structure Height                                        | 205.0 meters                          |
|                                | Ground Elevation (AMSL)                                         | 1044.0 meters                         |
| Antenna Data                   | Height of Radiation Center Above Ground Level                   | 210.9 meters                          |
|                                | Height of Radiation Center Above Average Terrain                | 550.7 meters                          |
|                                | Height of Radiation Center Above Mean Sea Level                 | 1254.9 meters                         |
|                                | Effective Radiated Power                                        | 1000 kW                               |



Site 1: Antenna  
Technical Data

| Section                        | Question                                                                                                                                      | Response                |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Antenna Type                   | Antenna Type                                                                                                                                  | Directional Custom      |
|                                | Do you have an Antenna ID?                                                                                                                    | No                      |
|                                | Antenna ID                                                                                                                                    | 1006098                 |
| Antenna Manufacturer and Model | Manufacturer:                                                                                                                                 | RFS                     |
|                                | Model                                                                                                                                         | SAA20-C170-E400-ET6R-20 |
|                                | Electrical Beam Tilt                                                                                                                          | 1                       |
|                                | Mechanical Beam Tilt                                                                                                                          | Not Applicable          |
|                                | toward azimuth                                                                                                                                |                         |
|                                | Polarization                                                                                                                                  | Elliptical              |
| DTV and DTS: Elevation Pattern | Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt? |                         |
|                                | Rotation                                                                                                                                      | 0 degrees               |
|                                | Uploaded file for elevation antenna (or radiation) pattern data                                                                               |                         |

Directional Antenna Relative Field Values (Pre-rotated Pattern)

| Degree | Value | Degree | Value | Degree | Value | Degree | Value |
|--------|-------|--------|-------|--------|-------|--------|-------|
| 0      | 0.940 | 90     | 0.899 | 180    | 0.940 | 270    | 0.245 |
| 10     | 0.987 | 100    | 0.900 | 190    | 0.854 | 280    | 0.232 |
| 20     | 1.000 | 110    | 0.905 | 200    | 0.733 | 290    | 0.201 |
| 30     | 0.988 | 120    | 0.917 | 210    | 0.588 | 300    | 0.218 |
| 40     | 0.963 | 130    | 0.936 | 220    | 0.437 | 310    | 0.302 |
| 50     | 0.936 | 140    | 0.963 | 230    | 0.302 | 320    | 0.437 |
| 60     | 0.917 | 150    | 0.968 | 240    | 0.218 | 330    | 0.588 |
| 70     | 0.905 | 160    | 1.000 | 250    | 0.207 | 340    | 0.730 |
| 80     | 0.900 | 170    | 0.987 | 260    | 0.232 | 350    | 0.854 |

Additional Azimuths

| Degree | V <sub>A</sub> |
|--------|----------------|
|--------|----------------|



Site 1: Operating  
Constants

| Section                              | Question                                                                                                                                       | Response             |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Transmitter and<br>Transmission Line | Transmitter Power Output (TPO):<br><i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i> | 16.44 dBk<br>44.1 kW |
|                                      | Transmission Line Loss (LL):                                                                                                                   | 0.68 dB              |
|                                      | Antenna Input Power (AIP):                                                                                                                     | 15.76 dBk            |
|                                      | Max. Antenna Power Gain (AG)                                                                                                                   | 14.24 dB             |
|                                      | Effective Radiated Power (ERP)<br><i>(Average Power)</i>                                                                                       | 30.00 dBk<br>1000 kW |

Site 2: Antenna  
Location Data

| Section                           | Question                                                        | Response                                 |
|-----------------------------------|-----------------------------------------------------------------|------------------------------------------|
| Antenna Structure<br>Registration | Do you have an FCC Antenna Structure Registration (ASR) Number? | No                                       |
|                                   | ASR Number                                                      |                                          |
| Coordinates (NAD83)               | Latitude                                                        | 35° 28' 25.4" N+                         |
|                                   | Longitude                                                       | 083° 19' 22.5" W-                        |
|                                   | Structure Type                                                  | TOWER-A free standing or<br>guyed struct |
|                                   | Overall Structure Height                                        | 30 meters                                |
|                                   | Support Structure Height                                        | 30 meters                                |
|                                   | Ground Elevation (AMSL)                                         | 735 meters                               |
| Antenna Data                      | Height of Radiation Center Above Ground Level                   | 19 meters                                |
|                                   | Height of Radiation Center Above Average Terrain                | -144.8 meters                            |
|                                   | Height of Radiation Center Above Mean Sea Level                 | 754 meters                               |
|                                   | Effective Radiated Power                                        | 1.73 kW                                  |

Site 2: Antenna  
Technical Data

| Section                        | Question                                                                                                                                      | Response           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| Antenna Type                   | Antenna Type                                                                                                                                  | Directional Custom |
|                                | Do you have an Antenna ID?                                                                                                                    | No                 |
|                                | Antenna ID                                                                                                                                    | 1002019            |
| Antenna Manufacturer and Model | Manufacturer:                                                                                                                                 | KAT                |
|                                | Model                                                                                                                                         | 2x2 750 10325      |
|                                | Electrical Beam Tilt                                                                                                                          | Not Applicable     |
|                                | Mechanical Beam Tilt                                                                                                                          | Not Applicable     |
|                                | toward azimuth                                                                                                                                |                    |
|                                | Polarization                                                                                                                                  | Elliptical         |
| DTV and DTS: Elevation Pattern | Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt? |                    |
|                                | Rotation                                                                                                                                      | 90 degrees         |
|                                | Uploaded file for elevation antenna (or radiation) pattern data                                                                               |                    |

Directional Antenna Relative Field Values (Pre-rotated Pattern)

| Degree | Value | Degree | Value | Degree | Value | Degree | Value |
|--------|-------|--------|-------|--------|-------|--------|-------|
| 0      | 0.955 | 90     | 0.479 | 180    | 0.124 | 270    | 0.457 |
| 10     | 0.895 | 100    | 0.338 | 190    | 0.079 | 280    | 0.620 |
| 20     | 0.775 | 110    | 0.232 | 200    | 0.037 | 290    | 0.794 |
| 30     | 0.789 | 120    | 0.148 | 210    | 0.109 | 300    | 0.941 |
| 40     | 0.913 | 130    | 0.101 | 220    | 0.124 | 310    | 1.000 |
| 50     | 0.988 | 140    | 0.106 | 230    | 0.103 | 320    | 0.934 |
| 60     | 0.940 | 150    | 0.094 | 240    | 0.143 | 330    | 0.788 |
| 70     | 0.807 | 160    | 0.031 | 250    | 0.229 | 340    | 0.742 |
| 80     | 0.640 | 170    | 0.080 | 260    | 0.329 | 350    | 0.861 |

Additional Azimuths

| Degree | V <sub>A</sub> |
|--------|----------------|
|--------|----------------|

Site 2: Operating  
Constants

| Section                              | Question                                                                                                                                       | Response              |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Transmitter and<br>Transmission Line | Transmitter Power Output (TPO):<br><i>(average power at input to transmission line, after any filter attached to the transmitter, if used)</i> | -6.35 dBk<br>0.232 kW |
|                                      | Transmission Line Loss (LL):                                                                                                                   | 0.4 dB                |
|                                      | Antenna Input Power (AIP):                                                                                                                     | -6.75 dBk             |
|                                      | Max. Antenna Power Gain (AG)                                                                                                                   | 9.13 dB               |
|                                      | Effective Radiated Power (ERP)<br><i>(Average Power)</i>                                                                                       | 2.38 dBk<br>1.73 kW   |

**Parties to the  
Application (0)**

Information not provided.

**Attributable Interest**

| Section                        | Question                                                                                                             | Response |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------|----------|
| Equity and Financial Interests | Applicant certifies that equity and financial interests not set forth by the applicant parties are non-attributable. |          |
| Other Authorizations           | Does the applicant or any party to the application have an attributable interest in any other broadcast station(s).  |          |

License  
Certifications

| Section                                                        | Question                                                                                                                                                                                                                                                                           | Response               |
|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Main Studio Location                                           | The main studio location complies with 47 C.F.R. Section 73.1125.                                                                                                                                                                                                                  | Yes                    |
|                                                                | Country                                                                                                                                                                                                                                                                            | US                     |
|                                                                | PO Box                                                                                                                                                                                                                                                                             |                        |
|                                                                | Address Line 1                                                                                                                                                                                                                                                                     | 10 UNC-TV Drive        |
|                                                                | Address Line 2                                                                                                                                                                                                                                                                     |                        |
|                                                                | City                                                                                                                                                                                                                                                                               | Research Triangle Park |
|                                                                | State                                                                                                                                                                                                                                                                              | NC                     |
|                                                                | Zip Code                                                                                                                                                                                                                                                                           | 27709                  |
|                                                                | Phone                                                                                                                                                                                                                                                                              | +1 (919) 549-7000      |
| Constructed Facility                                           | The facility constructed as authorized in the underlying construction permit.                                                                                                                                                                                                      | Yes                    |
| Special Operating Conditions                                   | The facility was constructed in compliance with all special operating conditions, terms, and obligations described in the construction permit.<br><b>An exhibit may be required.</b> Review the underlying construction permit.                                                    | Yes                    |
| Transmitter                                                    | The transmitter complies with 47 C.F.R. Section 73.1660.                                                                                                                                                                                                                           | Yes                    |
| Changing Transmitter Power Output                              | Is this application being filed to authorize a change in transmitter power output caused by the replacement of an omnidirectional antenna with another omnidirectional antenna or an alteration of the transmission line system? See 47 C.F.R. Sections 73.1690(c)(1) and (c)(10). | No                     |
| Replacing a Directional Antenna                                | Is this application being filed pursuant to 47 C.F.R. Section 73.1690(c)(3) to replace a directional antenna with another directional antenna?                                                                                                                                     | No                     |
|                                                                | The proposed theoretical antenna pattern complies with 47 C.F.R. Section 73.1690(c)(3).                                                                                                                                                                                            |                        |
| Use a formerly licensed main facility as an auxiliary facility | Is this application being filed pursuant to 47 C.F.R. Section 73.1675(c)(1) to request authorization to use a formerly licensed main facility as an auxiliary facility and/or change the ERP of the proposed auxiliary facility?                                                   | No                     |
|                                                                | The proposed auxiliary facility complies with 47 C.F.R. Section 73.1675(a).                                                                                                                                                                                                        |                        |
|                                                                | Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? (See 47 C.F.R. Section 1.1306)                                                                                                                         |                        |

Legal  
Certifications

| Section          | Question                                                                                                                                                                                                                                                                                                                                                                                                           | Response |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Obligations      | Licensee/Permittee certifies that all terms, conditions, and obligations set forth in the underlying construction permit have been fully met.                                                                                                                                                                                                                                                                      | Yes      |
|                  | Licensee/Permittee certifies that, apart from changes already reported, no cause or circumstance has arisen since the grant of the underlying construction permit which would result in any statement or representation contained in the construction permit application to be now incorrect.                                                                                                                      | Yes      |
| Character Issues | <p>Applicant certifies that neither applicant nor any party to the application has or had any interest in, or connection with:</p> <p>(a) any broadcast application in any proceeding where character issues were left in unresolved or were resolved adversely against the applicant or party to the application; or</p> <p>(b) any pending broadcast application in which character issues have been raised.</p> | Yes      |
| Adverse Findings | Has the Applicant or any party to this application had an adverse finding or an adverse final action taken by any court or administrative body in a civil or criminal proceeding brought under any law related to the following: any felony; mass media-related antitrust or unfair competition; fraudulent statements to another governmental unit; or discrimination?                                            | No       |



Certification

| Section                          | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Response                                                                                               |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| General Certification Statements | 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 authorization or otherwise, and requests an Authorization in accordance with this application (See Section 304 of the Communications Act of 1934, as amended.).                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                        |
|                                  | The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR . See §1.2002(b) of the rules, 47 CFR §1.2002(b), for the definition of "party to the application" as used in this certification §1.2002 (c). The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.   |                                                                                                        |
| Authorized Party to Sign         | <b>FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID</b><br>Upon grant of this application, the Authorization Holder may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in automatic cancellation of the Authorization. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of Authorization requested in this application.<br>WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503). |                                                                                                        |
|                                  | I certify that this application includes all required and relevant attachments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes                                                                                                    |
|                                  | I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Thomas Brooks Skinner</b><br><i>Associate General Manager and General Counsel</i><br><br>12/17/2019 |



Attachments

| File Name | Uploaded By | Attachment Type | Description |
|-----------|-------------|-----------------|-------------|
|-----------|-------------|-----------------|-------------|