



United States of America  
**FEDERAL COMMUNICATIONS COMMISSION**  
**FM BROADCAST STATION CONSTRUCTION PERMIT**

Authorizing Official:

Official Mailing Address:

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ABILENE CHRISTIAN UNIVERSITY  
ACU BOX 27820  
ABILENE TX 79699

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Rodolfo F. Bonacci  
Assistant Chief  
Audio Division  
Media Bureau

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Facility ID: 300

Grant Date: November 25, 2014

Call Sign: KACU

This permit expires 3:00 a.m.  
local time, 36 months after the  
grant date specified above.

Permit File Number: BPED-20141027AAH

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules.

Commission rules which became effective on February 16, 1999, have a bearing on this construction permit. See Report & Order, Streamlining of Mass Media Applications, MM Docket No. 98-43, 13 FCC RCD 23056, Para. 77-90 (November 25, 1998); 63 Fed. Reg. 70039 (December 18, 1998). Pursuant to these rules, this construction permit will be subject to automatic forfeiture unless construction is complete and an application for license to cover is filed prior to expiration. See Section 73.3598.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

Name of Permittee: ABILENE CHRISTIAN UNIVERSITY

Station Location: TX-ABILENE

Frequency (MHz): 89.5

Channel: 208

Class: C1

Hours of Operation: Unlimited

Transmitter: Type Accepted. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.

Transmitter output power: As required to achieve authorized ERP.

Antenna type: Directional

Antenna Coordinates: North Latitude: 32 deg 13 min 47 sec  
 West Longitude: 99 deg 37 min 42 sec

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective radiated power in the Horizontal Plane (kW):	100	100
Height of radiation center above ground (Meters):	130	130
Height of radiation center above mean sea level (Meters):	795	795
Height of radiation center above average terrain (Meters):	189	189
Antenna structure registration number: 1247517		

Overall height of antenna structure above ground (including obstruction lighting if any) see the registration for this antenna structure.

Special operating conditions or restrictions:

- 1 BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee shall submit the results of a complete proof-of-performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components. This proof-of-performance may be accomplished using the complete full size antenna, or individual bays therefrom, mounted on a supporting structure of identical dimensions and configuration as the proposed structure, including all braces, ladders, conduits, coaxial lines, and other appurtenances; or using a carefully manufactured scale model of the entire antenna, or individual bays therefrom, mounted on an equally scaled model of the proposed supporting structure, including all appurtenances. Engineering exhibits should include a description of the antenna testing facilities and equipment employed, including appropriate photographs or sketches and a description of the testing procedures, including scale factor, measurements frequency, and equipment calibration.
- 2 BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee/licensee shall submit an affidavit that the installation of the directional antenna system was overseen by a qualified engineer. This affidavit shall include a certification by the engineer that the antenna was installed pursuant to the manufacturer's instructions and list the qualifications of the certifying engineer.
- 3 BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee must submit a certification executed by a licensed surveyor showing that the FM directional antenna system has been oriented at the azimuth(s) specified in the directional antenna proof of performance. This certification must include a description of the method used by the surveyor to determine the azimuth(s) of the installed directional antenna system and the accuracy of that determination.

## Special operating conditions or restrictions:

- 4 BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit an exhibit demonstrating that the measured directional antenna pattern complies with the appropriate community coverage provisions of 47 C.F.R. Sections 73.315 or 73.515 (See 47 C.F.R. Section 73.316(c)(2)(ix)(B)).
- 5 The relative field strength of neither the measured horizontally nor vertically polarized radiation component shall exceed at any azimuth the value indicated on the composite radiation pattern authorized by this construction permit.

A relative field strength of 1.0 on the composite radiation pattern herein authorized corresponds to the following effective radiated power:

. 100. kilowatts(H&V).

Principal minima and their associated field strength limits:

50 to 210 degrees True: 3.200 kilowatts

- 6 THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. SECTION 73.1620 DO NOT APPLY IN THIS CASE. A FORMAL REQUEST FOR PROGRAM TEST AUTHORITY MUST BE FILED IN CONJUNCTION WITH FCC FORM 302-FM, APPLICATION FOR LICENSE, BEFORE PROGRAM TESTS WILL BE AUTHORIZED. This request must contain documentation which demonstrates compliance with the following special operating condition(s):
- 7 The permittee shall, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. If necessary, a fence must be erected at such distances and in such a manner as to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). The fence must be a type which will preclude casual or inadvertent access, and must include warning signs at appropriate intervals which describe the nature of the hazard. Any areas within the fence found to exceed the recommended guidelines must be clearly marked with appropriate visual warning signs.
- 8 Documentation demonstrating compliance with the special operating condition(s) shall be submitted at the time of the filing of FCC 302-FM.
- 9 The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

\*\*\* END OF AUTHORIZATION \*\*\*