

Choose a U.S. State or Possession: AK - Alaska

Station Class: Class D noncommercial educational FM

-90 meters Antenna Height Above Average Terrain (HAAT)

Find Result

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Clear Data

Results:

Calculated ERP (rounded per Section 73.212) = 0.098 kW

Unrounded ERP = 0.097675 kW

Comments:

Entered HAAT is less than 30 meters; changed to 30 meters for calculations.

Presently licensed Class D noncommercial educational stations may continue operations. Except in Alaska, applications for new Class D noncommercial educational stations will not be accepted for filing.

Maximum class limit determined from:

Class: D Reference ERP: 0.0999 kW Reference HAAT: 30 meters Distance to 60 dBu F(50,50) contour: 5.6 km

For example, FMpower shows that 4.1 kW ERP at 122 meters HAAT is equivalent to reference Class A facilities of 6.0 kW ERP at 100 meters HAAT. Reference parameters for the various classes are specified in [47 CFR 73.211](http://www.ecfr.gov/cgi-bin/text-idx?node=se47.4.73_1211) (http://www.ecfr.gov/cgi-bin/text-idx?node=se47.4.73_1211) and are listed in a table at [FM Station Classes and Service Contours](/media/radio/fm-station-classes) (</media/radio/fm-station-classes>).

For shorter antenna heights, FMpower may display an equivalent ERP that is larger than the maximum permitted ERP for the station class. In such cases, a warning message will be posted. In practical terms, this means that coverage equivalent to the reference facilities for the station class cannot be obtained with the given HAAT. (This also illustrates the importance of antenna height on coverage for FM and TV facilities.)

Equivalence between FM facilities is made by comparing the distances to the 60 dBu (1 mV/m) F(50,50) service contour. The sole exception to this practice is for those grandfathered Class A stations covered by rule section [47 CFR 73.213\(c\)](http://www.ecfr.gov/cgi-bin/text-idx?node=se47.4.73_1213) (http://www.ecfr.gov/cgi-bin/text-idx?node=se47.4.73_1213). For these grandfathered stations, equivalence is determined by comparing the 34 dBu F(50,10) interfering contour if the HAAT is below the Class A reference HAAT of 100 meters, or by