

New NCE Station Application – 2021 Window Explanation of Methods Utilized

The firm of Munn-Reese, Broadcast Engineering Consultants, with offices at 385 Airport Drive, Coldwater, Michigan, has been retained for the purpose of preparing the technical data forming this report.

The report has been prepared by the undersigned and whose qualifications are a matter of record before the Federal Communications Commission.

I declare that the contents of this report are true and accurate to the best of my knowledge and belief.

MUNN-REESE

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By



Bruce Bellamy, Owner/Engineer

Calculation of Technical Parameters

The firm of Munn-Reese, Coldwater, MI, was retained to prepare the technical parameters and exhibits for a new NCE station application. Studies were completed to support the technical parameters for the following sections:

- Fair Distribution of Service, first or second noncommercial aural service
- Point System Factors/Tiebreakers, Diversity of Ownership
- Point System Factors/Tiebreakers, Coverage Contour Population and Area
- Channel and Facility Information
- Antenna Location Data
- Antenna Technical Data
- Technical Certifications

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Broadcast Engineering Consultants
Coldwater, MI 49036

Station allocations were determined using the V-Soft Communications® FMCommander program. Non-Allocation based studies were developed using the V-Soft Communications® Probe4 program. All terrain-based calculations used the NED 03 Sec terrain database unless stipulated otherwise in the exhibit(s). The FCC data used was dated 10/31/21. Station Allocations are contour based and tested to the nearest point to verify no prohibited overlap. This would eliminate the need for detailed contour studies.

Fair Distribution of Service, first or second noncommercial aural service

This was determined with a service count study showing the populations and percentages of population within the coverage contour for 1, 2, 3, 4, and 5 or more non-commercial services. Certifications of a 1st or 2nd noncommercial aural service were made if the area(s) with 1st or 2nd service If the area with 1 or 2 services mad up 10% or more the coverage contour population and the population in these areas exceeds 2,000. These studies were based on the new NCE station coverage contour with the intersection of any other noncommercial service's coverage contour.

Point System Factors/Tiebreakers, Diversity of Ownership

This was determined with a service count study testing for intersection city grade contours of any commonly owned station with the proposed new station city grade contour. The applicant certifies that if diversity points are claimed, the applicant has performed the necessary study to determine that the city grade contours of commonly owned stations do not intersect the city grade contour of the proposed station. This determination of qualification for Diversity of Ownership does not include stations for which we are seeking an exemption from attribution. An exhibit is included for this section only in the case where the applicant wishes to identify and divest the intersecting stations to claim diversity points.

Point System Factors/Tiebreakers, Coverage Contour Population and Area

Area of coverage calculations exclude substantial areas of water such as the Great Lakes and Oceans. Inland lakes, rivers, and streams were not excluded from the coverage area calculation. Currently V-Soft Communications does not have a software feature to automatically exclude substantial areas of water. For applications with substantial areas of water within the coverage contour, where practical to do so, polygons were manually drawn around the shoreline of the major land masses. The coverage area was then calculated by counting only the common area within the coverage contour and the hand drawn polygon. For the V-Software suite the above method is considered the standard method for removing large bodies of water from the area calculation.

The Coverage Contour Population was determined using the 2010 US Census block data. Contours are based FCC curves using the NED 03 Second terrain database along 360 radials. HAAT calculations are based on standard radials.

Technical Certifications

The applicant certifies that proposed station complies with the applicable rules using the methods described above.