(a) Convert the latitudes and longitudes of each reference point from degree-minute-second format to degree-decimal format by dividing minutes by 60 and seconds by 3600, then adding the results to degrees.

$$LATX_{dd} = DD + \frac{MM}{60} + \frac{SS}{3600}$$

$$LONX_{dd} = DDD + \frac{MM}{60} + \frac{SS}{3600}$$

(b) Calculate the mean geodetic latitude between the two reference points by averaging the two latitudes:

$$ML = \frac{LAT1_{dd} + LAT2_{dd}}{2}$$

(c) Calculate the number of kilometers per degree latitude difference for the mean geodetic latitude calculated in paragraph (b) of this section as follows:

KPD_{lat} = 111.13209 − 0.56605 cos 2ML + 0.00120 cos 4ML

(d) Calculate the number of kilometers per degree of longitude difference for the mean geodetic latitude calculated in paragraph (b) of this section as follows:

KPD_{lon} = 111.41513 cos ML − 0.09455 cos 3ML + 0.00012 cos 5ML

(e) Calculate the North-South distance in kilometers as follows:

$NS = KPD_{lat} \times (LAT1_{dd} - LAT2_{dd})$

(f) Calculate the East-West distance in kilometers as follows:

$EW = KPD_{lon} \times (LON1_{dd} - LON2_{dd})$

(g) Calculate the distance between the locations by taking the square root of the sum of the squares of the East-West and North-South distances:

$$DIST = \sqrt{NS^2 + EW^2}$$

(h) Terms used in this section are defined as follows:

(1) $LAT1_{dd}$ and $LON1_{dd}$ are the coordinates of the first location in degree-decimal format.

(2) $LAT2_{dd}$ and $LON2_{dd}$ are the coordinates of the second location in degree-decimal format.

(3) ML is the mean geodetic latitude in degree-decimal format.

(4) KPD_{lat} is the number of kilometers per degree of latitude at a given mean geodetic latitude.

(5) KPD_{lon} is the number of kilometers per degree of longitude at a given mean geodetic latitude.

(6) NS is the North-South distance in kilometers.

(7) EW is the East-West distance in kilometers.

(8) DIST is the distance between the two locations, in kilometers.

[70 FR 19306, Apr. 13, 2005, as amended at 79 FR 72150, Dec. 5, 2014]

§ 1.959 Computation of average terrain elevation.

Except as otherwise specified in § 90.309(a)(4) of this chapter, average terrain elevation must be calculated by computer using elevations from a 30 second point or better topographic data file. The file must be identified. If a 30 second point data file is used, the elevation data must be processed for intermediate points using interpolation techniques; otherwise, the nearest point may be used. In cases of dispute, average terrain elevation determinations can also be done manually, if the results differ significantly from the computer derived averages.

(a) Radial average terrain elevation is calculated as the average of the elevation along a straight line path from 3 to 16 kilometers (2 and 10 miles) extending radially from the antenna site. If a portion of the radial path extends over foreign territory or water, such portion must not be included in the computation of average elevation unless the radial path again passes over United States land between 16 and 134 kilometers (10 and 83 miles) away from the station. At least 50 evenly spaced data points for each radial should be used in the computation.

(b) Average terrain elevation is the average of the eight radial average terrain elevations (for the eight cardinal radials).

(c) For locations in Dade and Broward Counties, Florida, the method prescribed above may be used or average terrain elevation may be assumed to be 3 meters (10 feet).

[70 FR 19306, Apr. 13, 2005]

REPORTS TO BE FILED WITH THE COMMISSION

§ 1.981 Reports, annual and semi-annual.

Where required by the particular service rules, licensees who have entered into agreements with other persons for the cooperative use of radio station facilities must submit annually an audited financial statement reflecting the nonprofit cost-sharing nature of the arrangement to the Commission's offices in Washington, DC or alternatively may be sent to the Commission electronically via the ULS, no later than three months after the close of the licensee's fiscal year.

[78 FR 25160, Apr. 29, 2013]

FOREIGN OWNERSHIP OF COMMON CARRIER, AERONAUTICAL EN ROUTE, AND AERONAUTICAL FIXED RADIO STATION LICENSEES

SOURCE: 78 FR 41321, July 10, 2013, as amended at 78 FR 44028, July 23, 2013, unless otherwise noted.

§ 1.990 Citizenship and filing requirements under the Communications Act of 1934.

These rules establish the requirements and conditions for obtaining the Commission's prior approval of foreign ownership in common carrier, aeronautical en route, and aeronautical fixed radio station licensees and common carrier spectrum lessees that would exceed the 25 percent benchmark in section 310(b)(4) of the Communications Act of 1934, as amended (47 U.S.C. 310(b)(4)). These rules also establish the requirements and conditions for obtaining the Commission's prior approval of foreign ownership in common carrier (but not aeronautical en route or aeronautical fixed) radio station licensees and spectrum lessees that would exceed the 20 percent limit in section 310(b)(3) of the Act (47 U.S.C. 310(b)(3)).

(a)(1) A common carrier, aeronautical en route or aeronautical fixed radio station licensee or common carrier spectrum lessee shall file a petition for declaratory ruling to obtain Commission approval under section 310(b)(4) of the Act, and obtain such approval, before the aggregate foreign ownership of any controlling, U.S.-organized parent company exceeds, directly and/or indirectly, 25 percent of the U.S. parent's equity interests and/or 25 percent of its voting interests. An applicant for a common carrier, aeronautical en route or aeronautical fixed radio station license or common carrier spectrum leasing arrangement shall file the petition for declaratory ruling required by this paragraph at the same time that it files its application.

NOTE TO PARAGRAPH (a)(1): Paragraph (a)(1) of this section implements the Commission's foreign ownership policies under section 310(b)(4) of the Act (47 U.S.C. 310(b)(4)), for common carrier, aeronautical en route, and aeronautical fixed radio station licensees and common carrier spectrum lessees. It applies to foreign equity and/or voting interests that are held, or would be held, directly and/or indirectly in a U.S.-organized entity that itself directly or indirectly controls a common carrier, aeronautical en route, or aeronautical fixed radio station licensee or common carrier spectrum lessee. A foreign individual or entity that seeks to hold a controlling interest in such a licensee or spectrum lessee must hold its controlling interest indirectly, in a U.S.-organized entity that itself directly or indirectly controls the licensee or spectrum lessee. Such controlling interests are subject to section 310(b)(4) and the requirements of paragraph (a)(1) of this section. The Commission assesses foreign ownership interests subject to section 310(b)(4) separately from foreign ownership interests subject to section 310(b)(3).

(2) A common carrier radio station licensee or spectrum lessee shall file a petition for declaratory ruling to obtain approval under the Commission's section 310(b)(3) forbearance approach, and obtain such approval, before aggregate foreign ownership, held through one or more intervening U.S.-organized entities that hold non-controlling equity and/or voting interests in the licensee, along with any foreign interests held directly in the licensee or spectrum lessee, exceeds 20 percent of its equity interests and/or 20 percent of its voting interests. An applicant for a common carrier radio station license or spectrum leasing arrangement shall file the petition for declaratory ruling required by this paragraph at the same