§ 74.643  Interference to geostationary-satellites.

Applicants and licensees must comply with §101.145 of this chapter to minimize the potential of interference to geostationary-satellites. [68 FR 12771, Mar. 17, 2003]

§ 74.644  Minimum path lengths for fixed links.

(a) The distance between end points of a fixed link must equal or exceed the value set forth in the table below or the EIRP must be reduced in accordance with the equation set forth below.

<table>
<thead>
<tr>
<th>Frequency band (MHz)</th>
<th>Minimum path length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 1,990</td>
<td>n/a</td>
</tr>
<tr>
<td>1,990–7,125</td>
<td>17</td>
</tr>
<tr>
<td>12,200–13,250</td>
<td>5</td>
</tr>
<tr>
<td>Above 17,700</td>
<td>n/a</td>
</tr>
</tbody>
</table>

(b) For paths shorter than those specified in the Table, the EIRP shall not exceed the value derived from the following equation.

\[
\text{EIRP} = \text{MAXEIRP} - 40 \log(A/B) \text{ dBW}
\]

Where:

\( \text{EIRP} \) = The new maximum EIRP (equivalent isotropically radiated power) in dBW.

\( \text{MAXEIRP} \) = Maximum EIRP as set forth in the Table in §74.636 of this part.

\( A \) = Minimum path length from the Table above for the frequency band in kilometers.

\( B \) = The actual path length in kilometers.

NOTE 1 TO PARAGRAPH (b): For transmitters using Automatic Transmitter Power Control, EIRP corresponds to the maximum technical standards where a persuasive showing is made that:

(1) Indicates in detail why an antenna system complying with the requirements of paragraph (a) of this section cannot be installed, and

(2) Includes a statement indicating that frequency coordination as required in §74.604 (a) was accomplished.