
Second-Adjacent Channel Protection

The proposed facility is located within the protected contour of second-adjacent channel stations KFOG (283B, FCC ID 54770) and KITS (287B, FCC ID 18510), both licensed to San Francisco, California, which are protected in accordance with §74.1204(d) at a +40 dB level. The proposed composite Scala CA2-FM/CP antenna will be mounted with its center 13 meters above ground on an existing tower.

KFOG is located 34.95 kilometers distant with a calculated field of 70.81 dBu at the proposed site based on an ERP of 7.1 KW and height above average terrain along a 55.2° radial from KFOG to the proposed site of 479 meters. The translator would require a field intensity of 110.81 dBu to cause interference to the KFOG signal. KITS is located 38.53 kilometers distant with a calculated field of 70.48 dBu at the proposed site based on an ERP of 15 KW and height above average terrain along a 45° radial from KITS to the proposed site of 404 meters. The translator would require a field intensity of 110.48 dBu to cause interference to the KITS signal. Since KITS imposes the more restrictive limits on the proposed translator it will be used for this analysis.

Using the free-space formula to calculate distance to the proposed 110.48 dBu with an ERP of 99 watts we arrive at a worst-case potential interference area radius around the antenna of 208.93 meters. Using this as the worst-case and without accounting for the directionality or vertical plane pattern of the antenna, there are no occupied structures inside this circle.

Therefore there is zero population within the predicted interference contour and the proposed operation is in compliance with §74.1204(d).

