

WES Broadcast Consultants, Inc. Engineering Statement for KSJF-CD Ch 19 PAT

1. General

The purpose of this engineering statement is to demonstrate that the repack of KSJF-CD to Channel 19 has resulted in a significant loss of service population and coverage area much greater than one percent.

A. Population loss:

The FCC repack of KSJF CD from Channel 50 to Channel 19 and the reduction of Effective Radiated Power, have resulted in a significant reduction of service population. Exhibit A demonstrates the loss of service population. The service population of Channel 50 was 249,000 persons and the proposed repack to Channel 19 results in a loss of 16,681 persons. The amount of ERP reduction to KSJF is almost half of its licensed ERP from 1758w to 936w. This 47% decrease in power significantly reduces the stations ability to (a) penetrate foliage and (b) penetrate the walls of houses, apartment complexes and buildings; further increasing the effective population loss.

B. Contour Overlap & Service Area Loss:

Exhibit B demonstrates the contour overlap of first adjacent KFSM DT Channel 18 at 550kW Effective Radiated Power vs. KSJF CD Channel 19 at 936w. The overlap of KFSM to KSJF results in a loss of nearly one third of KSJF's Service Area to first adjacent Channel 18.

E. Interference Prediction Method:

All of the Interference predictions and contour calculations are made using Comstudy version 2.2 by Peter Moncure and Radiosoft. Interference is calculated using Longley Rice OET 69 routine within Comstudy. Calculations were made using Station to Station and Existing Interference masking. Station to Station Interference from KFSM to KSJF is shown in Exhibit C. All existing Interference is shown in Exhibit D.

D. Database Integrity:

Numerous errors and anomalies have been identified in the Engineering Database. We have carefully constructed the list of stations to be included in the study in Exhibit E. All duplications, allotments and incorrect records have been removed from our compiled list to insure the existing interference from masking is correct.

E. Co-location Solution: We have a solution involving co-location at a tower adjacent to the KFSM tower. By co-locating with KFSM we have eliminated the potential for interference to both facilities and preserved our service area. We believe that without co-location, this station will not work. Exhibit F is a Contour Map demonstrating the co-location of KSJF Ch 19 PAT with KFSM Ch 18 PAT. The Site parameters for Channel 19 Co-located are shown in Section 2. Engineering on the following page.

2. Engineering

A. Proposed Site:

KSJF-CD Channel 19 will operate with 7kW ERP at the Horizon with a Directional Antenna array with the main lobes oriented at 03 and 208 degrees as shown in Exhibit F at the following NAD27 coordinates:

N Latitude 35-47-48.7

W Longitude 94-10-04.26

This proposed site for the KSJF-CD Channel 19 final facility will be ASR #1037672
The facility will operate with the following elevation parameters:

AGL 100m

GAMSL 634.1m

RCAMSL 734.1m

HAAT 255.42m