

In Re FM Auction No. 94

AU Docket No. 12-239

To: Office of the Secretary
Attn: WTB/ASAD

COMMENTS RE FM AUCTION 94

Radio Pacific, Inc. ("Radio Pacific") hereby files these Comments in response to the Public Notice (DA 12-1411) announcing the schedule, procedures, and inventory for FM Auction No. 94.

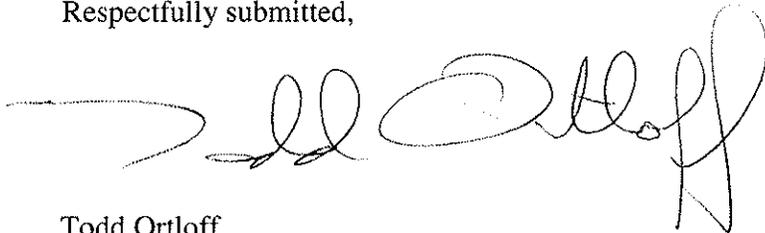
The inventory for the auction includes, as construction permit MM-FM1059-A, a Channel 237A allotment at Sequim, Washington. The minimum opening bid for the Sequim allotment has been set at \$20,000.

While the Public Notice does not detail the Commission's method for calculating the minimum opening bid for each allotment included in the auction, it is assumed that the total population to be served constitutes a significant factor in that calculation.

What is not likely recognized in the Commission's calculation for the Sequim allotment, however, is that this particular channel will be greatly impacted by interference from a cochannel Class C station licensed at Vancouver, BC, Canada, to which the Sequim allotment is short-spaced by 109 kilometers.

As is detailed in the attached Engineering Statement prepared by Erik C. Swanson, P.E. of Hatfield & Dawson Consulting Engineers, cochannel interference from the Canadian station will significantly limit the reception of the Sequim station. Accordingly, Radio Pacific requests that the minimum opening bid for the Sequim 237A allotment be reduced to \$2500.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Todd Ortloff". The signature is written in a cursive style with a long horizontal stroke extending to the left.

Todd Ortloff
Secretary
Radio Pacific, Inc.

Dated: September 24, 2012

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**Engineering Statement
Comments re Sequim 237A Allotment in FM Auction No. 94
September 2012**

This Engineering Statement has been prepared on behalf of Radio Pacific, Inc. ("Radio Pacific") in support of Comments in response to the Public Notice (DA 12-1411) announcing the schedule, procedures, and inventory for FM Auction No. 94.

The inventory for the auction includes, as construction permit MM-FM1059-A, a Channel 237A allotment at Sequim, Washington. The minimum opening bid for the Sequim allotment has been set at \$20,000.

While the Public Notice does not detail the Commission's method for calculating the minimum opening bid for each allotment included in the auction, it is inferred that the total population to be served constitutes a significant factor in that calculation.

What is not likely recognized in the Commission's calculation for the Sequim allotment, however, is that this particular channel will be greatly impacted by interference from a cochannel Class C station licensed and operating at Vancouver, BC, Canada. The Sequim allotment is short-spaced to the Vancouver station by 109 kilometers. Not only does the Sequim allotment include a significant power restriction designed to provide protection to the Canadian station, but the Sequim station must also accept any interference received from the Canadian station.

Were the Channel 237A allotment at Sequim fully-spaced to all stations and allotments, both domestic and foreign, one might estimate the population to be served by counting all persons residing within the standard 60 dBu contour distance for a Class A station, extending 28.3 kilometers from the allotment site. Based on evaluation using 2010 Census data, the population within this radius is 69,299 persons.

Assuming that minimum opening bids are calculated based on a linear relationship to the population served, we can calculate that each person within this 28.3 kilometer radius contributes \$0.29 to the \$20,000 minimum opening bid set forth in the Public Notice.

Analysis

The CDBS record for the Channel 237A Sequim allotment includes the following comment regarding international coordination with Canadian authorities:

12/14/2004: sent to Canada 12/14/04 as Specially negotiated, short-spaced allotment limited

to 49Watts ERP and 100m HAAT or the equivalent along the 3.6 azimuth to protect 237C in Vancouver, BC. 12/1/2005: Accepted on 237A by Canada in 11/24/05 letter as a specially negotiated, short-spaced allotment with the above-mentioned limitations.

Thus the Sequim allotment must reduce power towards Vancouver by 20.88 dB below the maximum Class A power of 6 kW, in order to comply with the negotiated protection towards the cochannel station in that city.

We have conducted an analysis of received interference utilizing the methodology described in Annex III of the *Working Arrangement for the Allotment and Assignment of FM Broadcasting Channels Under the Agreement Between the Government of Canada and the Government of the United States of America Relating to the FM Broadcasting Service*, as amended in 1997 ("*Working Arrangement*"), comparing the coverage contours from Sequim and the interfering contours from Vancouver, calculated at 1 dB increments, in order to arrive at the interference-free service area for the Sequim allotment.¹

In performing this analysis, we have utilized a directional antenna envelope pattern on the Sequim allotment having a 15 dB front-to-back ratio and recovery rate of 2 dB per 10 degrees, as required by §73.316(b)(1)-(2) of the Commission's Rules. The null was oriented at 3.6 degrees True towards Vancouver. Given the 49 watt power limit in the null (with the radiation center located at 100 meters AMSL, as the entire 3.6 degree radial is located entirely over sea-level water), the maximum main lobe power was set 15 dB higher at 1.55 kW.²

The Vancouver 237C station was assumed to be operating with its licensed parameters of 71.3 kW ERP, with the antenna located at 997 meters AMSL (686 meters HAAT). For a "best case" analysis, the Vancouver 237C directional antenna pattern was used, as found in the Industry Canada FM facilities database.³

The resulting interference-free service area for the Sequim allotment, based on a 20 dB D/U (Desired-to-Undesired) signal ratio, is depicted on the attached map exhibit and encompasses a 2010 Census population of just 8,928 persons.

Applying the \$0.29-per-person value derived above, we find that a minimum opening bid of \$2500 would be an appropriate value for the interference-limited Sequim allotment.

¹ This is the same methodology used to evaluate interference areas for "pre-1964" grandfathered short-spaced stations operating on first-adjacent and co-channels.

² 49 watts is equal to -13.10 dBk. When 15 dB is added to this figure, the result is 1.90 dBk, which is equal to 1.55 kW.

³ "Best case" because the Vancouver 237C directional antenna pattern does have some nominal power restriction in the direction of Sequim, compared with omnidirectional operation.

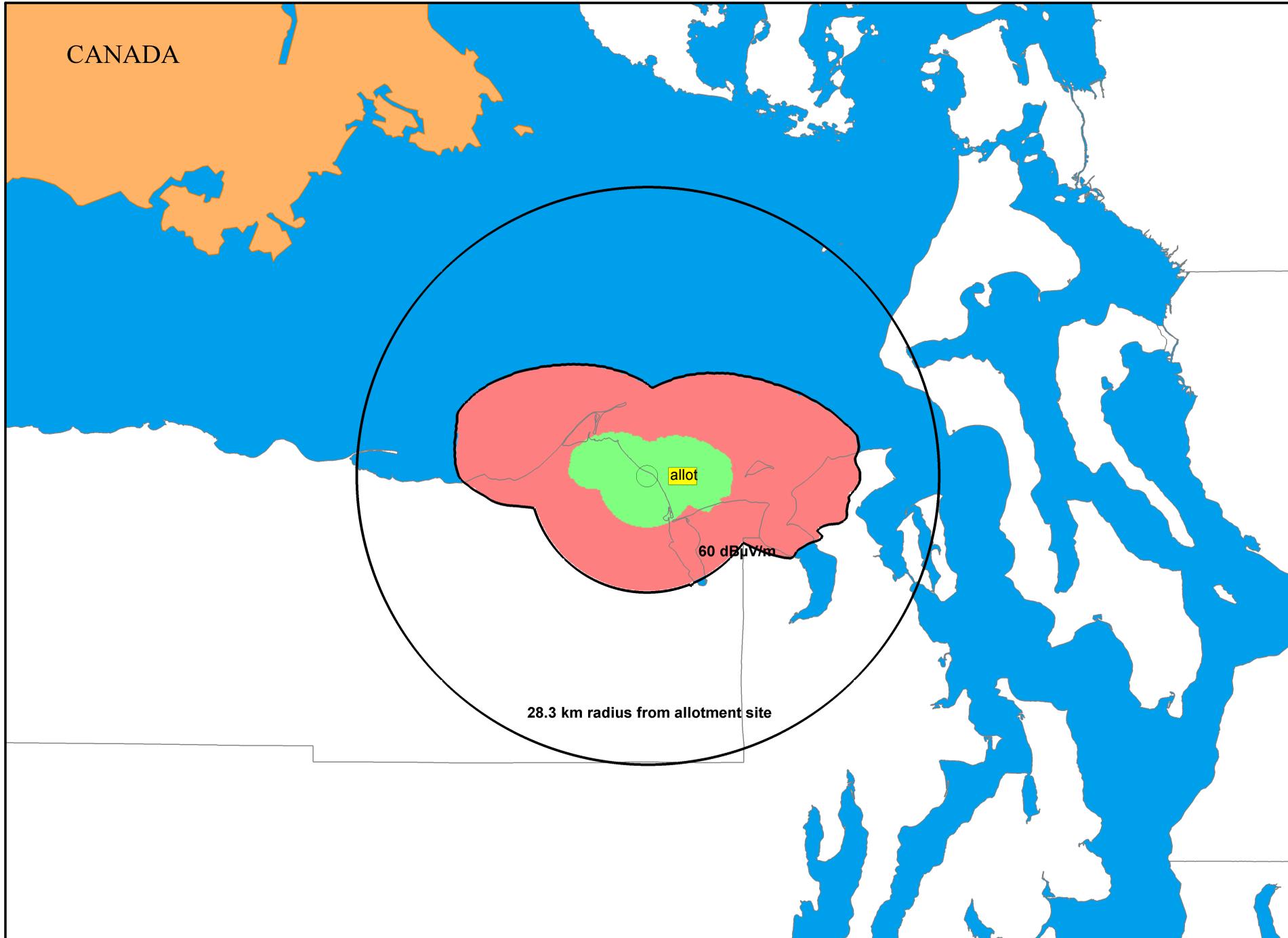
Statement of Engineer

This Engineering Statement has been prepared by Erik C. Swanson. I am a partner in the firm of Hatfield & Dawson Consulting Engineers and am registered as a Professional Engineer in the States of Washington and Colorado. I hereby declare that the facts set out in the foregoing Engineering Statement, except those of which official notice may be taken, are true and correct.

Signed this 24th day of September 2012



Erik C. Swanson, P.E.

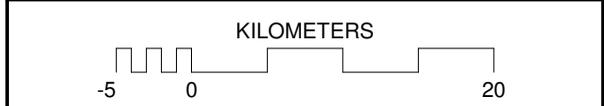


SIGNAL™: Sequim 237A

Prop. model 1: FCC-FCC
 Time: 50.0% Loc.: 50.0%
 Prediction Confidence Margin: 0.0dB
 Climate: Continental Temperate
 Land use (clutter): none
 Atmospheric Abs.: none
 K Factor: 1.333

Sites
 Site: allot
 N48°07'12.00" W123°04'20.00" 0.0 m
 allot Tx.Ht.AGL: 100.0 m Total ERPd: 1.90 dBkW
 Model: 1 Use file-horizontal/3.6° 95.3000 MHz

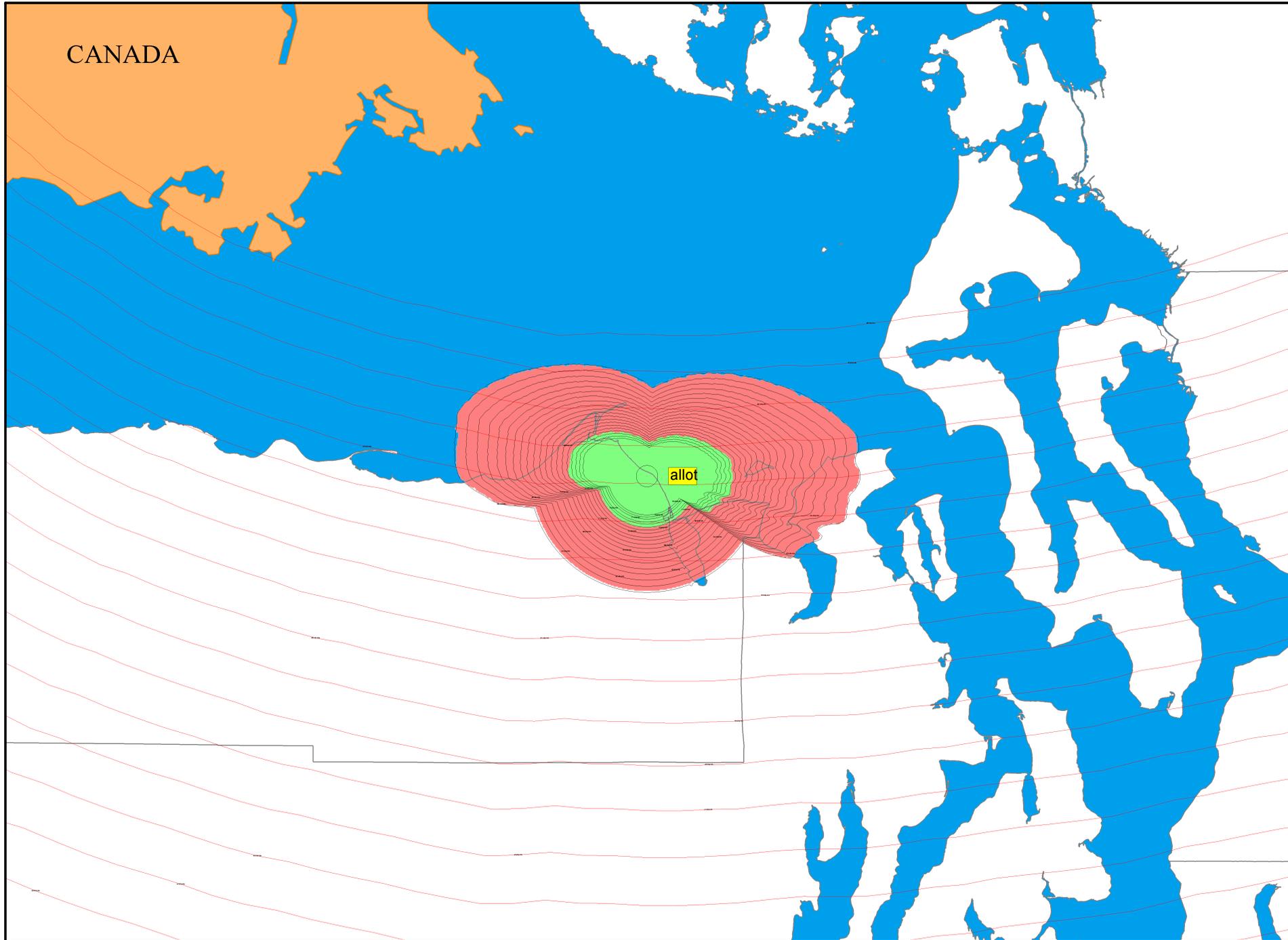
C/I ratio Primary Group TXs to Second Group TXs
 > 20.0 dB Predicted Interference Free
 < 20.0 dB Predicted Interference Received
 Display threshold level: -54.6 dBmW
 RX Antenna - Type: ISOTROPIC
 Height: 2.0 m AGL Gain: 0.00 dBd



Sequim 237A Received Int Study
 Hatfield & Dawson
 Exhibit Sep 2012

This map depicts the results of a contour-based D/U study of the impact of Vancouver 237C on the service area of Sequim 237A.

Contours from both stations were calculated at 1 dB increments. The resulting interference-free service area is shaded green on this map, and encompasses 8,928 persons per the 2010 Census.

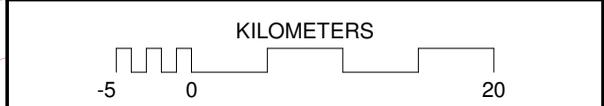


SIGNAL™: Sequim 237A

Prop. model 1: FCC-FCC
 Time: 50.0% Loc.: 50.0%
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 Climate: Continental Temperate
 Land use (clutter): none
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Sites
 Site: allot
 N48°07'12.00" W123°04'20.00" 0.0 m
 allot Tx.Ht.AGL: 100.0 m Total ERPd: 1.90 dBkW
 Model: 1 Use file-horizontal/3.6° 95.3000 MHz

C/I ratio Primary Group TXs to Second Group TXs
 > 20.0 dB Predicted Interference Free
 < 20.0 dB Predicted Interference Received
 Display threshold level: -54.6 dBmW
 RX Antenna - Type: ISOTROPIC
 Height: 2.0 m AGL Gain: 0.00 dBd



Sequim 237A Received Int Study
 Hatfield & Dawson
 Exhibit Sep 2012

This map depicts a contour-based D/U study of the impact of Vancouver 237C on the service area of Sequim 237A. Sequim 237A contours are calculated as F(50,50), while Vancouver 237C contours are calculated as F(50,10).