

**Rural Oregon Wireless Television
Madras Ch. 45+
Allocation Study**

This allocation study has been prepared on behalf of Rural Oregon Wireless Television ("ROWT"), in support of a displacement application for a TV translator station licensed to Madras, Oregon. The licensed channel is outside the "core spectrum" identified by the Commission for television broadcasting. The new channel specified in this application is located within the core.

Cochannel Allocation Study

The attached "Cochannel Allocation Study" map demonstrates that the proposed facility provides contour protection to all authorized facilities close enough to require detailed study.

In addition, the proposed operation is located 163 kilometers from the authorized facility of KNMT-DT Portland, on DTV Channel 45. A detailed interference study has been conducted to demonstrate that the proposed operation at Madras will not cause additional interference to KNMT-DT.

The time-shared "HDTV" computer program offered by the National Telecommunications and Information Administration's *TA Services* in Boulder, Colorado was employed as the method for coverage and interference protection. The HDTV computer program has been developed in close coordination with the Commission's OET staff, and utilizes similar methodology as the computer program used by the Commission to develop the DTV Table of Allotments. Predictions included "clipping" the extent of protected coverage as specified under §73.623(c)(2) at the DTV coverage contour distance for DTV assignments per §73.625(b). It is believed that the HDTV program offered by *TA Services* is compliant with the FCC's Office of Science and Technology Bulletin 69 Longley-Rice Methodology for Evaluating TV Coverage and Interference ("OET-69"), July 2, 1997.

Stations that are actually interfered with.

Name	NTSC Int	HDTV Int	Population(1990)
DKNMT-DTC	19.26 sq km	0.00 sq km	26.

The results indicate that the proposed Madras facility is predicted to cause interference to less than 0.5% of the population served by KNMT-DT. Therefore, it is believed that the proposed Madras facility complies with interference protection requirements to KNMT-DT.

First-Adjacent Channel Allocation Study

The attached "1st Adj Allocation Study" map demonstrates that the proposed facility provides contour protection to all authorized facilities close enough to require detailed study.

N+7 Allocation Study

There are no television stations operating on the N+7 channel within 100 kilometers.

N-14 Allocation Study

There are no television stations operating on the N-14 channel close enough to require detailed study.

Hatfield & Dawson Consulting Engineers

N-15 Allocation Study

ROWT proposes to operate Madras Ch. 45 at the same transmitter site as proposed by ROWT for Madras Ch. 30 in a separate but concurrently-filed application. The two translators will operate from the same antenna height and with the same antenna pattern. The only difference between the two translators will be a differential of 0.71 dB in maximum lobe ERP. Therefore, the signal level from Madras Ch. 45 will never exceed 6 dB above the signal level of Madras Ch. 30, and no interference will be caused.



