

March 7, 2002

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

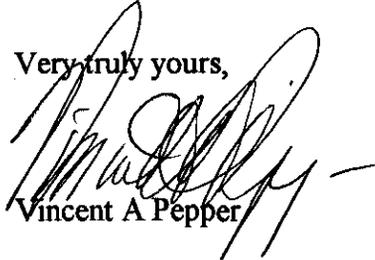
Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
The Portals  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

Dear Mr. Caton:

Transmitted herewith on behalf of Television Capital Corporation of Portland is an original and four (4) copies of its Supplement to Petition for Rule Making seeking the allocation of Channel 42+ to Portland, Oregon, in connection with its pending construction permit application for a full service NTSC television station at Portland, Oregon (File No. BPCT-19960920WH).

Should any further information be desired in connection with this matter, please contact this office directly.

Very truly yours,

  
Vincent A Pepper

Enclosures

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1776 K Street, N.W., Suite 200, Washington, D.C. 20006 tel: (202) 296-0600

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

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In re Application of )  
 )  
Amendment of Section 73.606(b) )  
Table of Allotments, )  
Television Broadcast Stations )  
Portland, Oregon )

MM Docket No. \_\_\_\_\_  
RM- \_\_\_\_\_

To: Chief, Mass Media Bureau

**SUPPLEMENT TO PETITION FOR RULE MAKING**

Television Capital Corporation of Portland ("TCC"), by its attorneys hereby supplements its previously filed Petition for Rule Making, as amended November 19, 2001 requesting amendment of the Table of Allotments for NTSC TV broadcast stations to add channel 42+ at Portland, Oregon. In support whereof the following is stated:

1. Attached hereto and incorporated herein is a copy of the Amendment to Petition for Rule Making and its supporting engineering data, as filed with the Commission on November 19, 2001. The Commission by Public Notice DA 02-270 released February 6, 2002, announced a window filing opportunity for certain pending requests for new NTSC television stations on channel 52-59. In that release the Commission pointed out that it had not dismissed petitions for rule making proposing new NTSC television allotments on channels 52-59 that had been amended to specify a core channel. That is the exact situation with TCC, as reflected above and as set forth in the Amendment to Petition for Rule Making.

2. TCC does, however, desire to file supplemental information with regard to the pending Petition. There is submitted herewith for Commission consideration in connection with the proposed allocation a further supplement to the technical details pertaining to the proposed allocation prepared by William R. Meintel of Techware, Inc.

3. In addition, the pending Petition references an issue presented by Class A television station K42BR, Terrebonne-Bend, Oregon, and proposes a simple solution to the issue by having K42BR operate on Channel 42 with a negative offset. This is to advise the Commission that TCC has been advised that K42BR has indicated a willingness to change their operation to a negative offset and a letter is being provided to confirm this fact, a copy of which will be submitted to the Commission upon receipt.

4. Additionally, the attached Techware, Inc. supplemental statement discusses a possible problem with Class A television station KKEI-CA, Channel 38, Portland, Oregon. The licensee of this station has indicated its willingness to collocate on the TCC proposed tower, which would eliminate this problem. Upon receipt of the letter agreement of the licensee, a copy will be submitted to the Commission in this proceeding.

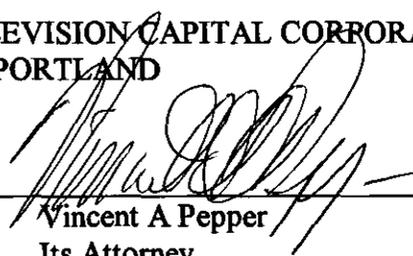
WHEREFORE, TCC requests that the Commission adopt and release a Notice of Proposed Rulemaking, proposing to amend the NTSC TV Table of Allotments, and thereafter adopt and release a Report and Order amending the NTSC TV Table of Allotments as follows:

| <b>Community</b> | <b>Present</b>               | <b>Proposed</b>                   |
|------------------|------------------------------|-----------------------------------|
| Portland, OR     | 2, 6+, 8-, *10, 12, 24+, *30 | 2, 6+, 8-, *10, 12, 24+, *30, 42+ |

Respectfully submitted,

TELEVISION CAPITAL CORPORATION  
OF PORTLAND

By: \_\_\_\_\_

  
Vincent A Pepper  
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March 7, 2002

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November 19, 2001

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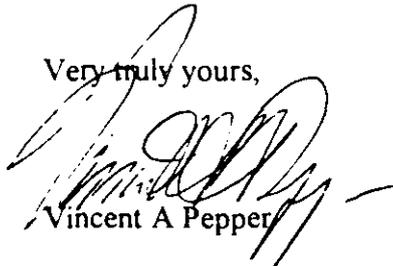
Ms. Magalie Roman Salas, Secretary  
Federal Communications Commission  
The Portals  
445 12th Street, S.W.  
Washington, D.C. 20554

Dear Ms. Salas:

Transmitted herewith on behalf of Television Capital Corporation of Portland is an original and four (4) copies of its Amendment to Petition for Rule Making seeking allocation of Channel 42+ to Portland, Oregon, in response to the Commission's *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59) Notice of Proposed Rule Making*, FCC 01-91 (March 28, 2001) and in connection with its pending construction permit application for a full service NTSC television station at Portland, Oregon (File No. BPCT-19960920WH).

Should any further information be desired in connection with this matter, please contact this office directly.

Very truly yours,



Vincent A Pepper

Enclosures

bcc: Mr. C.E. Feltner (w/encl)  
Mr. Melvyn Lieberman (w/encl)  
Andrew S. Kersting, Esq. (w/encl) – Hand Delivery  
Martin R. Leader, Esq. (w/encl)

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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OFFICE OF THE SECRETARY

In re Application of )  
 )  
Amendment of Section 73.606(b) ) MM Docket No. \_\_\_\_\_  
Table of Allotments, ) RM- \_\_\_\_\_  
Television Broadcast Stations )  
Portland, Oregon )

To: Chief, Mass Media Bureau

**AMENDMENT TO PETITION FOR RULE MAKING**

Television Capital Corporation of Portland ("TCC"), by its attorneys and in response to the Commission's *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59) Notice of Proposed Rule Making*, FCC 01-91 (March 28, 2001), hereby amends its previously filed petition for rulemaking to now request amendment of the Table of Allotments for NTSC TV Broadcast Stations to add Channel 42+ at Portland, Oregon. In support of this request, the following is stated:

1. TCC previously filed an application for a construction permit for a new TV broadcast station on Channel 40 at Portland, Oregon (File No. BPCT-19960920WH). Sinclair Communications of Portland, Inc. ("Sinclair") also filed an application for the same allotment (File No. BPCT-19960724LF). In 1999, the Commission released a Public Notice entitled *Mass Media Bureau Announces Window Filing Opportunity for Certain Pending Applications and Allotment Petitions for New Analog TV Stations*.<sup>1</sup> The *Public Notice* opened "a window filing opportunity to allow persons with certain pending requests for new analog (NTSC) television

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<sup>1</sup> See 14 FCC Rcd 19559 (1999), subsequently modified by 15 FCC Rcd 4974 (2000) ("*Public Notice*").

stations to modify their requests, if possible, to eliminate technical conflicts with digital television (DTV) stations and to move from channels 60-69.”<sup>2</sup> The *Public Notice* also opened a window for the filing of “petitions for rule making seeking a new channel below channel 60 for those applications with pending applications for new full-service NTSC television stations on channels 2-59 at locations inside of the ‘TV Freeze Areas.’” *Id.* Both TCC and Sinclair came within that eligibility category because they had both filed applications for new full service NTSC television stations on Channel 40 at Portland, Oregon that conflicted with a Channel 40 DTV allotment later made at Portland, Oregon.

2. On July 17, 2000, TCC and Sinclair filed a Joint Request for Approval of a Settlement Agreement, requesting the grant of TCC’s application and the dismissal with prejudice of Sinclair’s application. Concurrently with that filing, TCC submitted a Petition for Rule Making to amend the Table of Allotments for NTSC TV Broadcast Stations to substitute Channel 59 for Channel 40 at Portland, Oregon (“*Channel 59 Petition*”) pursuant to the displacement provisions of the Commission’s *Public Notice*.

3. The Commission had not yet acted on TCC’s *Channel 59 Petition* when it released a *Notice of Proposed Rule Making* that addressed the status of stations and pending applications within the Channel 52-59 band, which will be reallocated after the digital transition.<sup>3</sup> The *NPRM* expressly treated the issue of pending Channel 59 applications, directing the Mass Media Bureau “to suspend processing of applications and channel allotment petitions for new analog stations on Channel 59, but to *allow limited amendments to specify another channel, if available.*”<sup>4</sup> Thus, with the Commission having effectively denied the substantive

---

<sup>2</sup> See *Public Notice* at 1.

<sup>3</sup> See *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59) Notice of Proposed Rule Making*, FCC 01-91 (March 28, 2001)(“*NPRM*”).

<sup>4</sup> *NPRM* at para. 24. (emphasis supplied).

request of the *Channel 59 Petition*, TCC now amends that petition to request that the Commission add NTSC Channel 42+ to Portland and allow TCC to amend its pending application to specify Channel 42+ for prompt processing by the Mass Media Bureau.

4. The attached Engineering Statement provides the necessary technical analysis to support the instant request. An allocation of Channel 42+ to Portland, Oregon clears all other allocations, with two exceptions that are examined below.

5. First, a seventh channel “taboo” spacing (N+7) issue is raised by a full-service NTSC station operating on Channel 49 KDPX, Vancouver, WA. However, the N+7 short-spacing should present no obstacle to the proposed allocation. In the instant proposal, the “taboo” issue is not a real issue at all, as the near collocation of TCC’s proposed station and KDPX will keep the signal strength of the two carriers relatively equal and thus will result in no actual interference.<sup>5</sup> The attached Engineering Statement examines both the historical and technical aspects of the taboo issue extensively, highlighting the fact that television tuner receiver technology has advanced significantly since the time the taboo restrictions were first introduced.<sup>6</sup> This is a factor that the Commission itself has acknowledged as critical in reducing or eliminating taboo-induced interference.<sup>7</sup>

6. Furthermore, the Commission has previously approved television facilities that were similarly taboo short-spaced.<sup>8</sup> In fact, the Commission has even eliminated the UHF taboo restrictions with respect to low power television stations, illustrating the Commission’s

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<sup>5</sup> See Engineering Statement at 5.

<sup>6</sup> See Engineering Statement at 2-6.

<sup>7</sup> See *A Study of UHF Television Receiver Immunities*, OET-TM-3, August 1987.

<sup>8</sup> See Letter from Barbara Kreisman, Mass Media Bureau to Montgomery County Media Network, Inc. dated May 31, 1998 (waiving §73.640 and §73.698 to allow for a 10 kilometer N-7 taboo short-spacing for KHIM-TV, Conroe, Texas).

recognition that the taboo restrictions are no longer necessary.<sup>9</sup> Thus, to the extent that it is necessary, TCC requests that the Commission waive the requirements of §73.698 to allow for the allocation of Channel 42+ to Portland, Oregon.

7. The second issue is presented by Class A television station K42BR, Terrebonne-Bend, OR, which by also operating on Channel 42, could result in prohibited overlap under this proposal. However, the potential overlap problem is easily addressed by the Commission if it instructs station K42BR, Terrebonne-Bend, OR, to operate on Channel 42 with a negative offset. The Commission has recognized that “[t]wo stations operating on the same channel, but with different frequency offsets, may be located much closer together with no additional interference potential than if one or both of the stations operated without a carrier offset or the stations used the same offset.”<sup>10</sup> Thus, the Commission has frequently directed channel offsets to avoid possible co-channel interference.<sup>11</sup> In fact, the Commission has amended its rules to direct Class A low power television stations to specify a carrier offset for the express purpose of avoiding interference conflicts with full-service stations.<sup>12</sup>

8. The public interest is obviously served by the allotment of Channel 42+ to Portland, as it helps clear the way for reallocation of the 698-756 MHz spectrum band, eliminates a technical conflict with a DTV allotment, and expedites the inauguration of a new television service. In addition, the proposed allotment provides the Commission with an

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<sup>9</sup> See *In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, 12 FCC Rcd 14588, 14654 (1997) (“deleting the current taboo restrictions on use of a channel either 7 channels below or 14 channels above the channel of another station in the low power TV service.”)

<sup>10</sup> *In the Matter of Establishment of a Class A Television Service Memorandum Opinion and Order on Reconsideration*, 16 FCC Rcd 8244 at para 71 (2001).

<sup>11</sup> See *Crandon, Wisconsin*, 3 FCC Rcd 6765 n.1 (1988) (“A different offset between two television stations reduces interference and makes possible the separation criteria set forth in our Rules.”).

opportunity to help foster the development of emerging national television networks by providing an additional competitive broadcast outlet in a top 25 television market<sup>13</sup> with which to establish a primary affiliation.<sup>14</sup> In addition, the allotment of Channel 42+ to Portland would (i) bring a new local television service to 1,004,140 viewing households in the Portland area, (ii) promote ownership diversity in the Portland television market, and (iii) increase competition in the local advertising market. Indeed, in light of the Commission's relaxation of the local television ownership rules and the increasing consolidation in the broadcast industry, the public interest benefits that would result from TCC's allotment proposal have even more importance in today's broadcast environment than those that existed at the time the *Interim Policy*<sup>15</sup> and *VHF Top 100 Markets* were adopted. Upon the amendment of the TV Table of Allotments, TCC will amend the technical portion of its application pending before the Commission to specify operations on the new channel.

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<sup>12</sup> See Note to §73.1545(e) indicating that "all licensed Class A stations must operate with a carrier frequency offset" by January 13, 2002.

<sup>13</sup> The Portland market currently is ranked as the 23<sup>rd</sup> television market. See *Broadcasting & Cable*, p. B-218 (2000).

<sup>14</sup> The WB and UPN have explained to the Commission in a variety of proceedings that one of their primary challenges in establishing themselves as a nationwide network has been finding a sufficient number of stations with which to affiliate. See, e.g., Comments of The WB Television Network, *Establishment of a Class A Television Service*, MM Docket No. 00-10 (filed Feb. 10, 2000); Comments and Reply Comments of The Warner Bros. Television Network, *Review of the Commission's Regulations Governing Programming Practices of Broadcast Television Network and Affiliates*, MM Docket No. 95-92 (filed Oct. 30, 1995, Nov. 27, 1995).

<sup>15</sup> See *Interim Policy on VHF Television Channel Assignments*, 21 RR 1695 (1961), *recon. denied*, 21 RR 1710a (1961) ("Interim Policy").

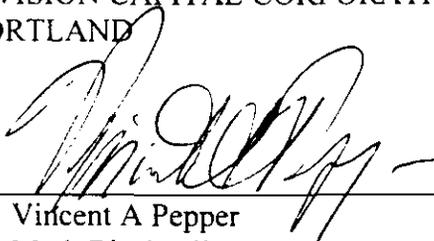
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| <b>Community</b> | <b>Present</b>               | <b>Proposed</b>                   |
|------------------|------------------------------|-----------------------------------|
| Portland, OR     | 2, 6+, 8-, *10, 12, 24+, *30 | 2, 6+, 8-, *10, 12, 24+, *30, 42+ |

Respectfully submitted,

TELEVISION CAPITAL CORPORATION  
OF PORTLAND

By: \_\_\_\_\_



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Mark Blacknell  
Its Attorneys

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fax: (202)296-5572

November 19, 2001

**LIEBERMAN & WALISKO**  
*CONSULTING TELECOMMUNICATIONS ENGINEERS*  
11403 GILSAN STREET  
SILVER SPRING, MD 20902

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**E N G I N E E R I N G   S T A T E M E N T**

ABSTRACT

This engineering statement supports the rule making request of Television Capital Corporation of Portland seeking to add NTSC television channel 42 to Portland, Oregon.

This request meets the current milage separation requirements of 47 C.F.R. Section §73.698 Table II of the rules except for channel N+7 and 47 C.F.R. Section §73.6010 of the rules as it pertains to co-channel Class A television station K42BR, Terrebonne-Bend, Oregon.

The co-existence between the instant proposed and the latter aforesated assignment may be accomodated by a directional antenna and offset carriers; the co-existence between the instant proposed and the former aforesated N+7 channel may be accomodated by a waiver of this rule which is being requested as part of this engineering statement.

BACKGROUND

In September 1996, the applicant filed for NTSC channel 40 which was an open allocation in the Table of Allotments, 47 U.S.C. Section §73.606 but "frozen" as a result of RM #5811 adopted July 1987. The "freeze" was instituted to allow for DTV allotments across the United States.

The Sixth Report and Order released April 1997 allocated channel 40 as a DTV channel for Portland, thus eliminating its use by the applicant. In October 1997, the applicant filed an application with a concurrent Petition for Rulemaking looking to assign television channel 59 to Portland and consequently for its use as an NTSC assignment. On March 28, 2001, the FCC announced it would not process applications for television stations on channel 59, which again eliminated the applicants attempt to secure a television channel for use in Portland.

**LIEBERMAN & WALISKO**  
*CONSULTING TELECOMMUNICATIONS ENGINEERS*  
11403 GILSAN STREET  
SILVER SPRING, MD 20902

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INSTANT PROPOSAL

This instant proposal calls for the allotment of NTSC channel 42 to Portland, Oregon with specific assignment to Television Capital Corporation of Portland.

A frequency search of the television spectrum indicates channel 42 is the best available channel and clears all other assignments with the following exceptions:

Channel 49- KPDX Vancouver, WA Full Service NTSC  
Channel 42 K42BR Terrebonne-Bend, OR Class A NTSC

As will be demonstrated herein, both of these assignments can be protected and allow the FCC to assign NTSC channel 42 to Portland, OR.

POTENTIAL INTERFERENCE TO CHANNEL 49-, KPDX, VANCOUVER, WA

KPDX operates on television channel 49- and as such, any channel allocations 7 channel below, as proposed herein, must be a minimum of 95.7 kilometers distant. This is clearly stated in 47 C.F.R. Section §73.698 Table II. However, in order to better understand why this separation exists requires a review of the history of this "taboo".

In April 1952, the FCC adopted the Sixth Report and Order which instituted a set of criteria for channel separations in order to provide protection from interference of channel assignments to one another. Among the separations created was one for protecting assignments 7 channels apart. This 7 channel separation came about as the result of a fear of (1) local television receiver oscillator radiation, and (2) an intermediate frequency (I.F.) beat.

With respect to the question of local receiver oscillator interference, the record at that time provided no hard evidence that local receiver oscillator interference would actually occur. The record reflects "the general agreement at the above hearings that oscillator radiation is likely to be more severe in the UHF band than in the VHF

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band, due to the difficulty in suppressing such radiation at the higher frequencies"<sup>1</sup>. To better understand the nature of this phenomenon, a quick review of how a typical tube type television receiver operates is in order.

The signal from the television station arrives at the antenna along with all the other station signals in the area. The radio frequency (RF) amplifier tube in the tuner selects only the desired signal, (rejecting all others), amplifies it, and couples it to the mixer (also located in the tuner). In the mixer, the station signal and a signal from the local oscillator are mixed together (heterodyned) to produce a lower, or *intermediate*, frequency. The intermediate frequency (IF) amplifiers are tuned to pass only the intermediate frequencies, in this case, approximately 41.25 MHz, 4 MHz wide, and reject all others. The remaining receiver circuits converts the information in the IF band into video, audio and synchronizing information.

In the 1950's, the tuner of a television receiver consisted of the mechanical device, (a turret used to select the proper coil for a particular frequency) upon which was mounted two tubes - an RF amplifier tube and a combination mixer- oscillator tube. In an effort to reduce radiation from these tubes, which would cause interference to other television receivers, the manufacturers placed metal shields around them. While these shields did indeed provide some radiation suppression, enough leaked out which could and would cause interference to nearby television receivers. The interference would obtain because a television receiver's local oscillator operating on a frequency 7 channels below the tuned channel (in order to produce an IF frequency in the order of 41.25 MHz) radiates and causes interference to a nearby second television receiver attempting to tune to a station 7 channels below the station selected by the first television receiver. If the radiation from the first television receiver is strong enough, the RF will interfere with the picture being produced by the second television receiver. The use of the tube shields was an attempt to cure or reduce the problem. Because, at that time, there was no cure for the local oscillator radiation problem, the FCC

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<sup>1</sup> 169. The Third Notice of Further Proposed Rule Making, (b) UHF.

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added a milage separation "taboo" that was based upon the principle of non-overlapping Grade A contours.

The FCC revisited the question of the seventh channel "taboo" in 1987. They recognized that television receiver tuners had changed over the years and reported<sup>2</sup> "In an industry-government meeting in 1985<sup>3</sup>, it was reported that some 77% of color television receivers being marketed today employ electronic tuners". The results of the 1987 FCC study illustrated UHF performance in the area of the 7<sup>th</sup> channel "taboo" to be better than a VHF reference for which there was no "taboo". The FCC measured the local oscillator radiation from 16 UHF television receivers and comapred them to the reference level (used to establish the oscillator "taboo") of 1500 uV/m. In all cases, they found the radiation substantially below the reference level. The worst case was 293 uV/m and the average was about 20 uV/m. Four receivers showed less than 1.0 uV/m as a threshold. These 16 receivers were vintage 1983. In todays modern environment of tuner design, the perceived problem of local oscillator interference has no basis for consideration.

With respect to the question of Intermediate Frequency (IF) beat which is the second part of the seventh channel "taboo" found in the FCC rules, the FCC considers both the 7<sup>th</sup> and the 8<sup>th</sup> channel removed as part of the IF beat "taboo" which requires a 31.4 kilometer separation of stations. However, because the question of the 7<sup>th</sup> channel removed is dealt with in their requirement of a station separation of 95.7 kilometers, the question of its application toward the IF beat beomes moot.

However, the question of IF beat still remains, even if the 7<sup>th</sup> channel above the desired channel is within the 31.4 kilometer permimeter. In order to deal with the solution, a better understanding of the problem should be put forth.

The IF beat "taboo" was directed by the FCC because they believed that when two television stations are separated by a receiver's intermediate

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<sup>2</sup> Introduction "A Study of UHF Television Receiver Immunities", OET-TM-3, August 1987

<sup>3</sup> Minutes of meeting, Land Mobile Radio/UHF Television Technical Advisory Committee, 11/15/1985

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frequency, it is possible that these two stations signals will combine and produce a beat signal of approximately 41 to 45 mHz and will be picked up by the IF amplifier in a television receiver.

The same 1987 study<sup>4</sup> by the FCC concluded that their tests indicated that UHF "taboo" channel combinations for IF beats generally are better than the VHF reference employed. Again, there is no VHF "taboo" for IF beat.

The FCC finally dealt with the question of 7 channel separations (N+7) in a recent study for evaluating television coverage and interference<sup>5</sup>. In that study Table 5-B is offered to show what ratio of desired to undesired signal must prevail in order to have interference. In the column "Analog to Analog", the FCC listed -30 dB for N-7 (channel offset relative to the desired channel) and -33 dB for N+7. Thus, the FCC is saying that interference with an N-7 or N+7 channel will not obtain until the difference in strength between the two carriers is -30 dB in the case of the seventh channel below the desired channel and -33 dB in the case of the seventh channel above the desired channel.

The petition and application proposes to meet that criteria by co-locating (actually 1.7 kilometers will separate the two stations - KPDX, channel 49, Vancouver, WA and the instant proposed) which will keep the signal strength of the two carriers relatively equal and certainly considerably less than the values set forth in OET-69.

POTENTIAL INTERFERENCE TO K42BR, TERREBONNE-BEND, OR

The instant petition proposes the use of channel 42 at Portland, OR and could cause prohibited overlap to class A television station K42BR, Terrebonne-Bend, OR. The instant accompanying application is required to protect the 74 dBu contour of K42BR by controlling its 29 dBu F(50,10) non-offset contour or its 46 dBu F(50,10) offset contour. In order to accommodate both facilities, the applicant proposes to operate on channel

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<sup>4</sup> "A Study of UHF Television Receiver Immunities", OET-TM-3, August 1987

<sup>5</sup> OET Bulletin 69, "Longley-Rice Methodology for Evaluating TV Coverage and Interference", July 1997

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42+ and asks that K42BR be directed to operate on channel 42-. This will allow the instant proposal to use a ratio of 74 dBu F(50,50) to 46 dBu F(50,10) for contour protections. The accompanying Figure 1 shows a radiation pattern for the Portland allocation and Figure 2 shows the clearance between the two pertinent contours.

CONCLUSION

The Sixth report and Order adopted April 3, 1997 and released April 21, 1997 assigned NTSC channel 40 to DTV channel for use at Portland, OR. Therefore, all pending applications for this frequency in Portland were "frozen" until such time as a filing window opened up allowing an application filed on for channel 40 could be modified specifying an alternate channel.

On November 22, 1999, a Public Notice release by the Mass media Bureau of the FCC announced a filing window for applicants with pending applications in channels 60 to 69 and those channels eliminated because of DTV channel assignments to modify those applications and specify a new channel.

On July 17, 2000, Television Capital Corporation of Portland filed a Petition for Rulemaking seeking to assign NTSC channel 59 to Portland in lieu of channel 40. On March, 28 2001, the FCC announced it would not process NTSC proposals for new television stations occupying channel 59.

The instant rule making petition seeks to allocate channel 42+, presently unassigned, to Portland in place of channel 40 or 59.

NTSC channel 42 may be substituted and allocated to Portland, Oregon at coordinates North Latitude 45° 30' 58", West Longitude 122° 43' 59". This site complies with the requirements of 47 C.F.R. Section §73.685(a), (city of license), 47 C.F.R. Section §73.623(c), (channel separation criteria for DTV assignments), and with the herein detailed waiver request, 47 C.F.R. Section §73.610 (NTSC channel separation criteria).

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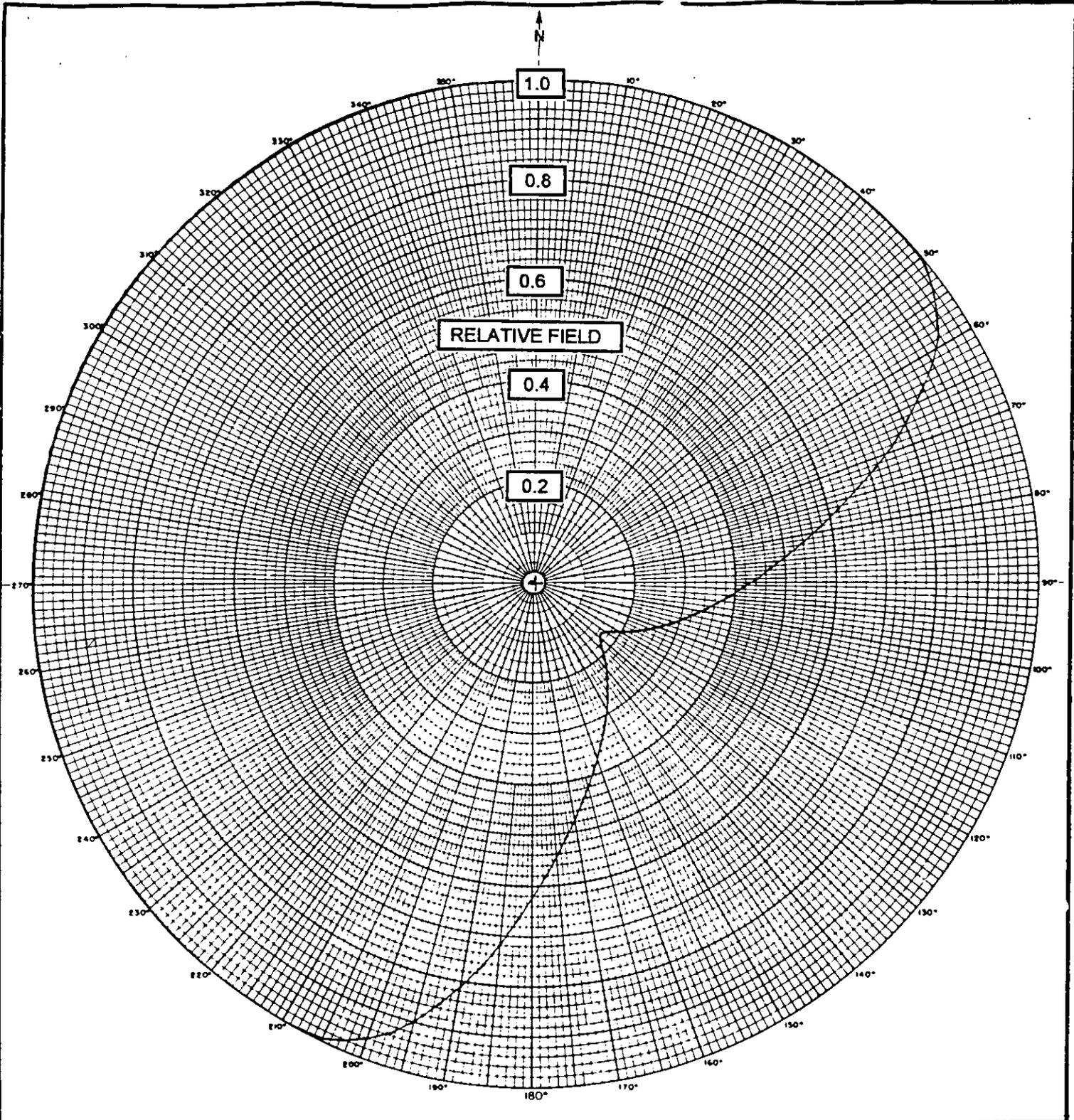
UHF television channel 42+ operating at the instant proposed coordinates would employ a directional antenna (see Figure 1) at 516 meters AMSL, 427 meters AAT and have a radiated power in the maximum direction of 5000 kilowatts.

In support, the following additional exhibit is submitted:

Figure 3 - a separation study from the instant proposed site to other NTSC and DTV assignments with which there could be a possible conflict.

On the basis of the aforesaid information and exhibits, it is proposed to amend 47 C.F.R. Section §73.606(b) to read as follows:

| City             | Present                        | Proposed                            |
|------------------|--------------------------------|-------------------------------------|
| Portland, Oregon | 2, 6+, 8-, *10<br>12, 24+, *30 | 2, 6+, 8-, *10<br>12, 24+, *30, 42+ |



ORIENTATION OF ANTENNA

N 308° E

**FIGURE 1**

NEW - Portland, Oregon

**RELATIVE FIELD PATTERN  
HORIZONTAL PLANE**

Oct. 2001

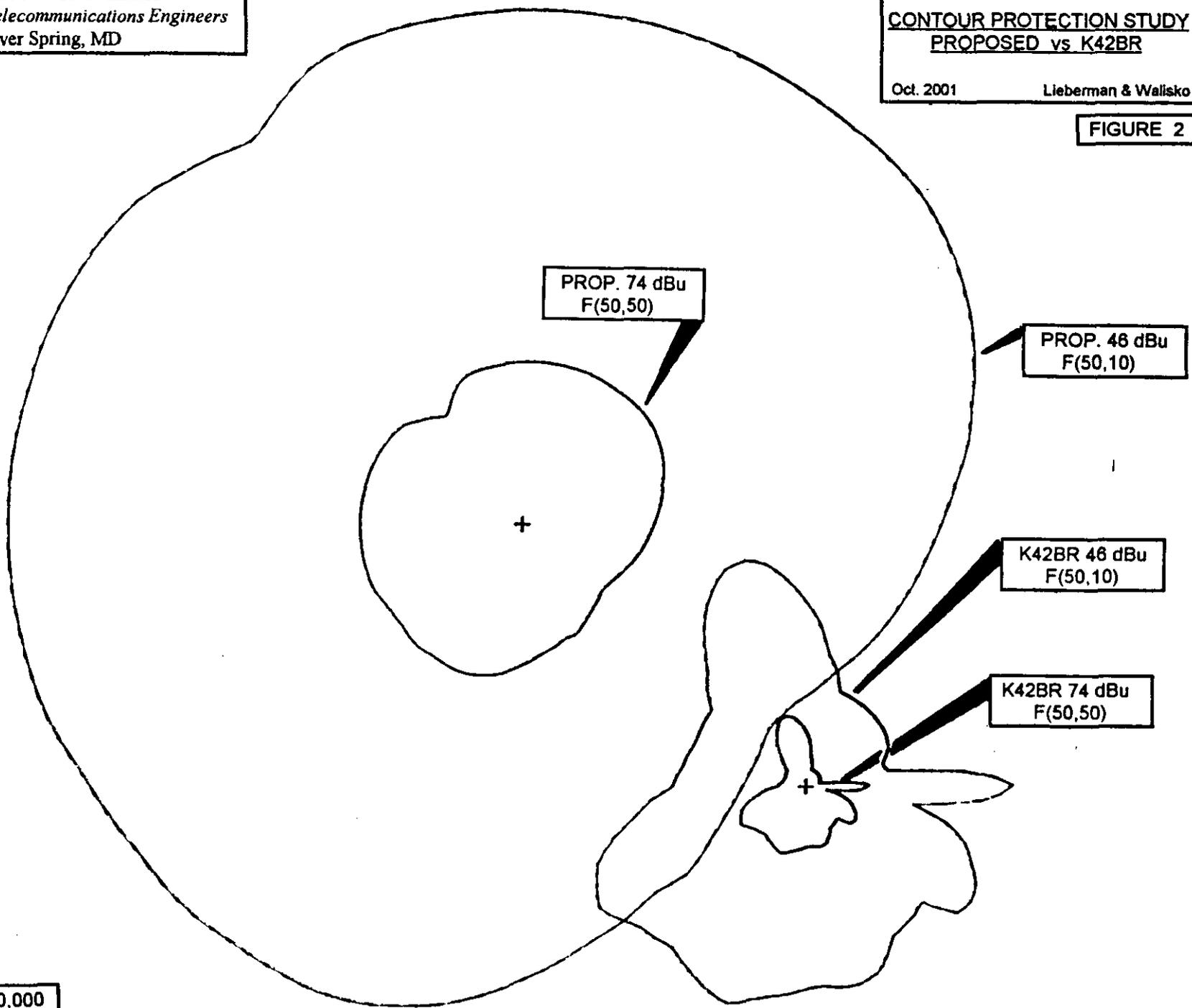
Lieberman & Walisko

**Lieberman & Walisko**  
*Consulting Telecommunications Engineers*  
 Silver Spring, MD

**Lieberman & Walisko**  
Consulting Telecommunications Engineers  
Silver Spring, MD

NEW - Portland, Oregon  
**CONTOUR PROTECTION STUDY**  
**PROPOSED vs K42BR**  
Oct. 2001 Lieberman & Walisko

**FIGURE 2**



SCALE 1:2,500,000

**LIEBERMAN & WALISKO**  
CONSULTING TELECOMMUNICATIONS ENGINEERS  
11403 GILSAN STREET  
SILVER SPRING, MD 20902

NEW - Portland, Oregon

Figure 3

**TV CHANNEL SPACING STUDY**

Job title: Portland, OR  
Proposed latitude: N 45 30 58.00  
Proposed longitude: W 122 43 59.00  
Proposed offset: + offset  
Proposed zone: 2

Proposed channel: 42

| CH  | Call     | Record | City      | ST | Z | Status | Bear. | Dist. | Reqd.<br>Dist. | Result             |
|-----|----------|--------|-----------|----|---|--------|-------|-------|----------------|--------------------|
| 42+ | KVEW     | 17367  | KENNEWICK | WA | 2 | LICEN  | 75.6  | 287.4 | 280.8          | 6.6                |
| 40- | 960724LF | 18357  | PORTLAND  | OR | 2 | CPAPP  | 0.0   | 0.0   | 24.1 to        | 96.6 km            |
| 40- | 960920WH | 18360  | PORTLAND  | OR | 2 | CPAPP  | 115.4 | 16.2  | 24.1 to        | 96.6 km            |
| 27  | KOPB-TV  | 18364  | PORTLAND  | OR | 2 | LICEN  | 304.9 | 1.2   | 24.1 to        | 96.6 km            |
| 49- | KPDX     | 18367  | VANCOUVER | WA | 2 | LICEN  | 297.7 | 1.7   | 95.7           | -94.0 <sup>1</sup> |
| 46  | KGW      | 18373  | PORTLAND  | OR | 2 | LICEN  | 305.5 | 1.2   | 24.1 to        | 96.6 km            |
| 27  | KOPB-TV  | 18374  | PORTLAND  | OR | 2 | LICEN  | 305.5 | 1.2   | 24.1 to        | 96.6 km            |
| 43  | KATU     | 18375  | PORTLAND  | OR | 2 | LICEN  | 0.0   | 0.0   | 9.7 to         | 88.5 km            |
| 45  | KNMT     | 18387  | PORTLAND  | OR | 2 | LICEN  | 0.0   | 0.0   | 24.1 to        | 96.6 km            |
| 40  | KOIN     | 18389  | PORTLAND  | OR | 2 | LICEN  | 90.0  | 0.0   | 24.1 to        | 96.6 km            |
| 46  | KGW      | 18391  | PORTLAND  | OR | 2 | LICEN  | 304.9 | 1.2   | 24.1 to        | 96.6 km            |
| 39  | KOAC-TV  | 18736  | CORVALLIS | OR | 2 | LICEN  | 203.7 | 106.2 | 96.6           | 9.6                |
| 39  | KOAC-TV  | 18740  | CORVALLIS | OR | 2 | LICEN  | 203.7 | 106.2 | 96.6           | 9.6                |

\*\*\*\*\* End of channel 42 study \*\*\*\*\*

Note 1: This proposed N+7 channel assignment is dealt with in the text of the accompanying Rulemaking Petition of which this study is a part of..

LIEBERMAN & WALISKO  
CONSULTING TELECOMMUNICATIONS ENGINEERS  
11403 GILSAN ST.  
SILVER SPRING, MD 20902

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NEW - Portland, Oregon

DECLARATION

MELVYN LIEBERMAN, declares and certifies as follows:

That he is associated with the firm of **LIEBERMAN & WALISKO, Inc.**;

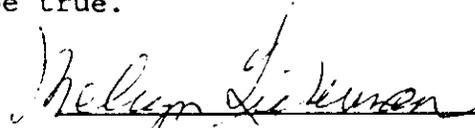
That this firm has been retained by **Television Capital Corporation of Portland** to prepare this Engineering Statement;

That his qualifications are a matter of record with the Federal Communications Commission;

That he has either prepared or directly supervised the preparation of all technical material contained in this engineering statement and that the facts stated in this report are true of his knowledge and belief except as to such statements as are herein stated to be on information and belief and as to such statements, he believes them to be true.

10/31/01

Date

  
Melvyn Lieberman

**CERTIFICATE OF SERVICE**

I, Lisa A. Blackburn, a secretary with the law firm of Pepper & Corazzini, do hereby certify that a true and correct copy of the foregoing Amendment to Petition for Rulemaking was served by U.S. mail, first class, postage-prepaid on the 19 day of November, 2001, on the following individuals:

Martin R. Leader, Esq.  
Shaw Pittman Potts & Trowbridge  
2300 N Street, NW  
Washington, DC 20037-1128

  
Lisa A. Blackburn  
Lisa A. Blackburn

# **Techware Inc.**

**Further Supplement to Technical Details Pertaining  
to  
The Substitution of Analog Channel 42 for Analog Channel 40  
at  
Portland, OR  
March 4, 2002**

It has been previously proposed to substitute analog channel 59 for channel 40 at Portland, OR and then to substitute channel 42. The reference coordinates previously proposed are:

45-30-58 North Latitude and 122-43-59 West Longitude

The proposed reference coordinates will result in the allotment not being in complete compliance with FCC Rules and Regulations Section 73.613(d) in that it would be short spaced to Class A station KKEI-CA Channel 38 Portland, OR. This station is currently located 15.8 km from the proposed channel 42 site (required spacing is 32 km). However, it appears feasible to co-locate this station at the site of the proposed channel 42.

A Longley-Rice analysis indicates that if the two stations were co-located then neither would receive any interference. In addition, because there would be a significant power difference between the two stations the likelihood of intermodulation interference to any other stations would be greatly diminished. Furthermore, a search of the FCC TV station database indicates that the only full service TV or Class A station within 150 km of the proposed site on any of the intermodulation product channels (33, 34, 35, 45, 46 and 47) is a Class A station on channel 35. That station KORK-CA Portland, OR is located 4 km from the proposed site but as noted above there is little likelihood of any interference to this station. It is also noted that this station is co-owned with KKEI-CA and that these two stations are currently 12.2 km apart raising the possibility that they already cause interference to each other in that they have similar powers and are only separated by 3 channels. If KKEI-CA is co-located with channel 42, as has been proposed here, then the distance between KKEI-CA and KORK-CA would be reduced to 4 km and thus reduce potential for any mutual interference.

It is also noted that the Commission has granted a number of waivers in other cases where the stations are separated by 4 channels including but not limited to the following.

Long Beach, CA Channel 18 & Los Angeles, CA Channel 22 (1.6 km spacing)  
Salt Lake City, UT Channel 20 & Ogden, UT Channel 24 (0.6 km spacing)  
Garland, TX Channel 23 & Dallas, TX Channel 27 (5.1 km spacing)  
Fresno, CA Channel 47 & Merced, CA Channel 51 (0.5 km spacing)  
Corona, CA Channel 52 & Anaheim, CA Channel 56 (0.4 km spacing)  
Avalon, CA Channel 54 & Los Angeles, CA Channel 58 (0.5 km spacing)  
Los Angeles, CA Channel 58 & Riverside, CA Channel 62 (1.1 km spacing)

In each of the above cases there is at least one potentially affected full service or Class A station on one or more of the intermodulation product channels within 50 km. In the case of Corona / Los Angeles, CA channels 52 and 56 there is a class A station on channel 48 1.2 km from the site of the Corona station creating the exact same situation as is being proposed here.

In view of this it is believed that a waiver of FCC Rules Section 73.613(d) is justified provided that station KKEI-CA agrees to co-locate with the proposed channel 42.

Prepared by:  
William R. Meintel  
TechWare, Inc.



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**TechWare, Inc.**  
**14101 Parke Long Court - Suite 206**  
**Chantilly, Virginia 20151-1645**  
**Phone: (703) 222-5842 FAX: 222-5843**

# **Techware Inc.**

**Supplement to Technical Details Pertaining  
to  
The Substitution of Analog Channel 42 for Analog Channel 40  
at  
Portland, OR  
February 20, 2002**

It has been previously proposed to substitute analog channel 59 for channel 40 at Portland, OR and then to substitute channel 42. The reference coordinates previously proposed are:

45-30-58 North Latitude and 122-43-59 West Longitude

As noted in the earlier submission the proposed reference coordinates will result in the allotment not being in complete compliance with FCC Rules and Regulations Sections 73.610 and 73.698 in that it would be short spaced to the following station:

KPDX Channel 49 Vancouver, WA

Required separation 95.7 - Actual separation 1.7 (94.0 km short)

The previous filing requested a wavier of this spacing requirement. It provided as justification improved receiver design, essential co-location of the two facilities (within 1.7 km) and the fact that the signal levels would be maintained such that the D/U ratio would be well within the limits given in a recent FCC study.

It has subsequently been determined that in addition to the short spacing to KPDX the proposed facility would also be short spaced to a recently granted (February 8, 2002) Class A facility on channel 38. The Class A facility, KKEI-CA Portland, OR, is located 15.8 km from the proposed channel 42 site (required spacing is 32 km). An OET Bulletin 69 Longley-Rice analysis indicates that the proposed channel 42 facility would cause a service loss to KKEI-CA of 4.77%. However, if the two stations were co-located a Longley-Rice analysis indicates that the interference would be eliminated. A preliminary analysis indicates that it would be possible to move KKEI-CA to the site proposed for channel 42.

It has also been determined that an application for a facility at Coos Bay OR has been dismissed. This application which was included in the DTV baseline service calculations had masked interference from the proposed channel 42 to DTV channel 42 at Medford, OR. In order to remove this interference a revised directional antenna pattern is being provided. The proposed parameters for channel 42 are as follows:

Effective Radiated Power (ERP): 5,000 kW  
Radiation Center Above Mean Sea Level (RCAMSL) 516 m  
Directional Antenna: Dielectric Model TFU-18JSC-R (Pattern Attached)

Using these parameters an OET Bulletin 69 Longley-Rice interference analysis was performed. That analysis indicates that no interference would be caused to any DTV allotments, DTV authorizations or applied for DTV facilities. The analysis also indicated that no interference would be caused to the short spaced channel 49. An additional analysis confirms that the revised pattern will also continue to protect the co-channel Class A station K42BR, Terrebonne-Bend, OR discussed in the previous filing. A plot showing the K42BR protected contour and the proposed channel 42 interfering contour is attached.

It should be noted that the proposed antenna pattern has a maximum-to-minimum ratio of 18.2 dB that is more than the 15 dB allowed by FCC Rules Section 73.685(e). However, this is a standard antenna pattern available from Dielectric and a number of antennas of this family of antennas are found in the FCC TV station database. It is further noted that this pattern is actually more restrictive than needed and a Longley-Rice analysis with the antenna nulls limited to the allowable 15 dB confirms that the facility would still meet the interference requirements. Furthermore, the attached plot (discussed above) showing the protection of K42BR includes this adjustment to the pattern.

It is also noted that the above parameters will permit full City Grade coverage of Portland, OR and is confirmed by the attached plot (plot includes the 18.2 dB pattern nulls). It will also provide service to the Portland area at a level that is consistent with the other existing stations in the market thereby providing the public with an additional media source that would otherwise be denied if this facility is not permitted to be built.

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**TechWare, Inc.**  
**14101 Parke Long Court - Suite 206**  
**Chantilly, Virginia 20151-1645**  
**Phone: (703) 222-5842 FAX: 222-5843**

In view of the reasons stated in this and the previous engineering statement, it is believed that a waiver of the spacing requirements of Sections 73.610 and 73.698 with respect to station KPDX are justified. And furthermore that the proposed channel substitution should be granted provided that station KKEI-CA can be either co-located with the proposed channel 42 or agrees to accept the additional interference.

Prepared by:  
William R. Meintel  
TechWare, Inc.



---

**TechWare, Inc.**  
**14101 Parke Long Court - Suite 206**  
**Chantilly, Virginia 20151-1645**  
**Phone: (703) 222-5842 FAX: 222-5843**



Exhibit No.  
#1

Date: 20 Feb 2002  
Call Letters: NEW  
Location: Portland, OR  
Customer:  
Antenna Type: TFU-18JSC-R 3BP300  
Channel: 42

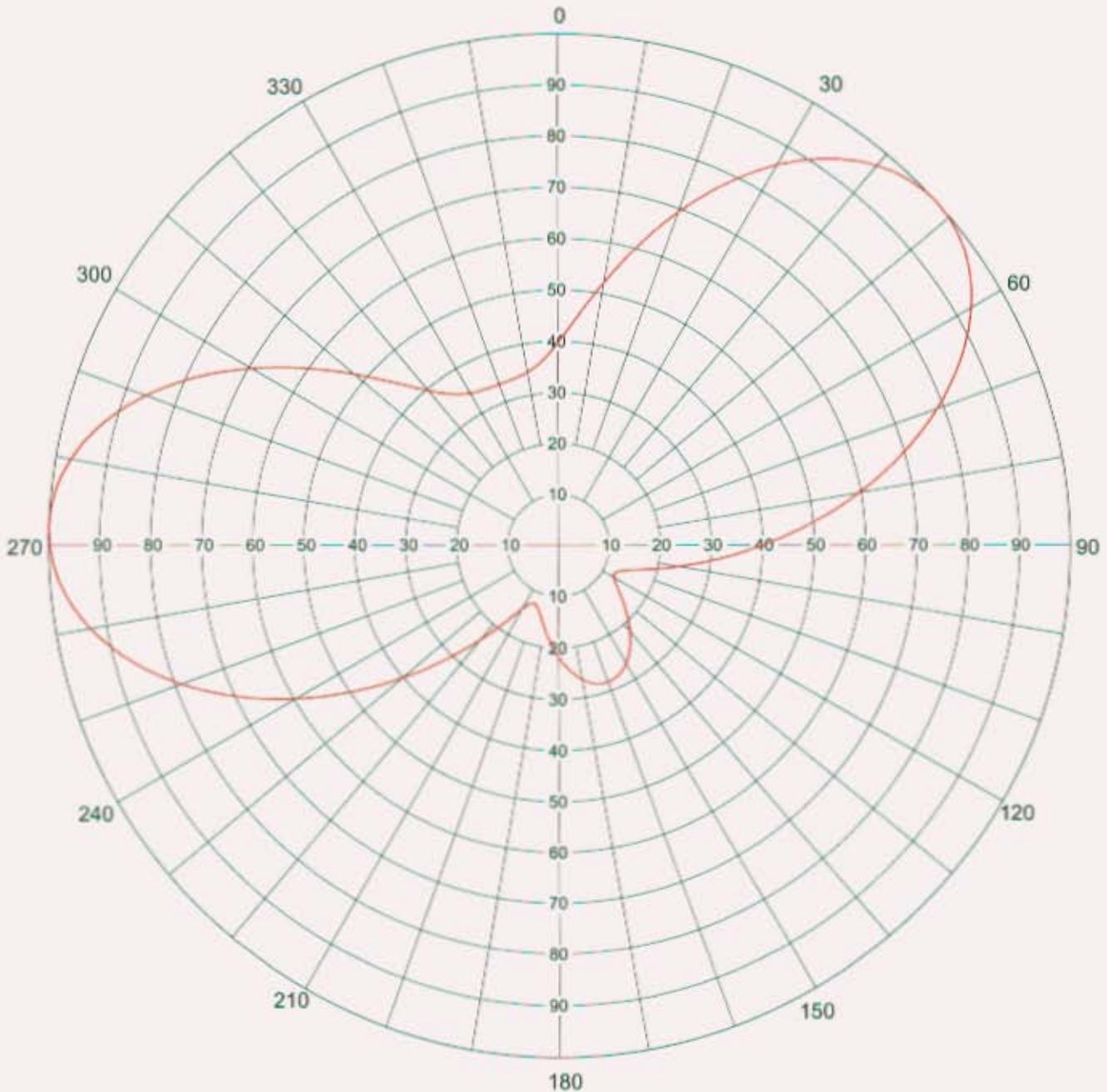
**AZIMUTH PATTERN**

RMS Gain at Main Lobe  
Calculated / Measured

**3.00 (4.77 dB)**  
Calculated

Frequency  
Drawing #

**641 MHz**  
**TFU-3BP300**



Remarks:



|                   |
|-------------------|
| Exhibit No.<br>#1 |
|-------------------|

Date **20 Feb 2002**  
 Call Letters **NEW** Channel **42**  
 Location **Portland, OR**  
 Customer  
 Antenna Type **TFU-18JSC-R 3BP300**

**TABULATION OF AZIMUTH PATTERN**

Azimuth Pattern Drawing # **TFU-3BP300**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0     | 0.336 | 45    | 0.780 | 90    | 0.788 | 135   | 0.125 | 180   | 0.283 | 225   | 0.125 | 270   | 0.788 | 315   | 0.780 |
| 1     | 0.337 | 46    | 0.797 | 91    | 0.770 | 136   | 0.123 | 181   | 0.282 | 226   | 0.127 | 271   | 0.805 | 316   | 0.764 |
| 2     | 0.337 | 47    | 0.813 | 92    | 0.752 | 137   | 0.123 | 182   | 0.282 | 227   | 0.130 | 272   | 0.822 | 317   | 0.746 |
| 3     | 0.337 | 48    | 0.829 | 93    | 0.733 | 138   | 0.123 | 183   | 0.281 | 228   | 0.133 | 273   | 0.838 | 318   | 0.729 |
| 4     | 0.337 | 49    | 0.844 | 94    | 0.715 | 139   | 0.124 | 184   | 0.280 | 229   | 0.138 | 274   | 0.853 | 319   | 0.712 |
| 5     | 0.338 | 50    | 0.859 | 95    | 0.696 | 140   | 0.125 | 185   | 0.278 | 230   | 0.143 | 275   | 0.868 | 320   | 0.694 |
| 6     | 0.339 | 51    | 0.873 | 96    | 0.676 | 141   | 0.128 | 186   | 0.276 | 231   | 0.149 | 276   | 0.883 | 321   | 0.676 |
| 7     | 0.340 | 52    | 0.887 | 97    | 0.657 | 142   | 0.130 | 187   | 0.274 | 232   | 0.156 | 277   | 0.896 | 322   | 0.658 |
| 8     | 0.341 | 53    | 0.900 | 98    | 0.637 | 143   | 0.133 | 188   | 0.271 | 233   | 0.164 | 278   | 0.909 | 323   | 0.641 |
| 9     | 0.343 | 54    | 0.912 | 99    | 0.617 | 144   | 0.136 | 189   | 0.268 | 234   | 0.172 | 279   | 0.921 | 324   | 0.623 |
| 10    | 0.345 | 55    | 0.924 | 100   | 0.597 | 145   | 0.140 | 190   | 0.265 | 235   | 0.182 | 280   | 0.932 | 325   | 0.606 |
| 11    | 0.347 | 56    | 0.935 | 101   | 0.577 | 146   | 0.144 | 191   | 0.261 | 236   | 0.192 | 281   | 0.943 | 326   | 0.588 |
| 12    | 0.350 | 57    | 0.945 | 102   | 0.557 | 147   | 0.148 | 192   | 0.257 | 237   | 0.203 | 282   | 0.953 | 327   | 0.571 |
| 13    | 0.354 | 58    | 0.954 | 103   | 0.537 | 148   | 0.153 | 193   | 0.253 | 238   | 0.215 | 283   | 0.961 | 328   | 0.554 |
| 14    | 0.358 | 59    | 0.962 | 104   | 0.517 | 149   | 0.158 | 194   | 0.248 | 239   | 0.227 | 284   | 0.969 | 329   | 0.538 |
| 15    | 0.363 | 60    | 0.971 | 105   | 0.497 | 150   | 0.163 | 195   | 0.244 | 240   | 0.240 | 285   | 0.976 | 330   | 0.522 |
| 16    | 0.368 | 61    | 0.977 | 106   | 0.477 | 151   | 0.168 | 196   | 0.239 | 241   | 0.254 | 286   | 0.983 | 331   | 0.507 |
| 17    | 0.374 | 62    | 0.983 | 107   | 0.458 | 152   | 0.173 | 197   | 0.234 | 242   | 0.268 | 287   | 0.987 | 332   | 0.492 |
| 18    | 0.381 | 63    | 0.988 | 108   | 0.439 | 153   | 0.179 | 198   | 0.229 | 243   | 0.283 | 288   | 0.992 | 333   | 0.478 |
| 19    | 0.389 | 64    | 0.993 | 109   | 0.420 | 154   | 0.184 | 199   | 0.223 | 244   | 0.298 | 289   | 0.995 | 334   | 0.464 |
| 20    | 0.397 | 65    | 0.995 | 110   | 0.401 | 155   | 0.190 | 200   | 0.218 | 245   | 0.314 | 290   | 0.998 | 335   | 0.451 |
| 21    | 0.406 | 66    | 0.998 | 111   | 0.383 | 156   | 0.196 | 201   | 0.212 | 246   | 0.331 | 291   | 0.999 | 336   | 0.438 |
| 22    | 0.416 | 67    | 0.999 | 112   | 0.365 | 157   | 0.201 | 202   | 0.207 | 247   | 0.348 | 292   | 1.000 | 337   | 0.427 |
| 23    | 0.427 | 68    | 1.000 | 113   | 0.348 | 158   | 0.207 | 203   | 0.201 | 248   | 0.365 | 293   | 0.999 | 338   | 0.416 |
| 24    | 0.438 | 69    | 0.999 | 114   | 0.331 | 159   | 0.212 | 204   | 0.196 | 249   | 0.383 | 294   | 0.998 | 339   | 0.406 |
| 25    | 0.451 | 70    | 0.998 | 115   | 0.314 | 160   | 0.218 | 205   | 0.190 | 250   | 0.401 | 295   | 0.995 | 340   | 0.397 |
| 26    | 0.464 | 71    | 0.995 | 116   | 0.298 | 161   | 0.223 | 206   | 0.184 | 251   | 0.420 | 296   | 0.993 | 341   | 0.389 |
| 27    | 0.478 | 72    | 0.992 | 117   | 0.283 | 162   | 0.229 | 207   | 0.179 | 252   | 0.439 | 297   | 0.988 | 342   | 0.381 |
| 28    | 0.492 | 73    | 0.987 | 118   | 0.268 | 163   | 0.234 | 208   | 0.173 | 253   | 0.458 | 298   | 0.983 | 343   | 0.374 |
| 29    | 0.507 | 74    | 0.983 | 119   | 0.254 | 164   | 0.239 | 209   | 0.168 | 254   | 0.477 | 299   | 0.977 | 344   | 0.368 |
| 30    | 0.522 | 75    | 0.976 | 120   | 0.240 | 165   | 0.244 | 210   | 0.163 | 255   | 0.497 | 300   | 0.971 | 345   | 0.363 |
| 31    | 0.538 | 76    | 0.969 | 121   | 0.227 | 166   | 0.248 | 211   | 0.158 | 256   | 0.517 | 301   | 0.962 | 346   | 0.358 |
| 32    | 0.554 | 77    | 0.961 | 122   | 0.215 | 167   | 0.253 | 212   | 0.153 | 257   | 0.537 | 302   | 0.954 | 347   | 0.354 |
| 33    | 0.571 | 78    | 0.953 | 123   | 0.203 | 168   | 0.257 | 213   | 0.148 | 258   | 0.557 | 303   | 0.945 | 348   | 0.350 |
| 34    | 0.588 | 79    | 0.943 | 124   | 0.192 | 169   | 0.261 | 214   | 0.144 | 259   | 0.577 | 304   | 0.935 | 349   | 0.347 |
| 35    | 0.606 | 80    | 0.932 | 125   | 0.182 | 170   | 0.265 | 215   | 0.140 | 260   | 0.597 | 305   | 0.924 | 350   | 0.345 |
| 36    | 0.623 | 81    | 0.921 | 126   | 0.172 | 171   | 0.268 | 216   | 0.136 | 261   | 0.617 | 306   | 0.912 | 351   | 0.343 |
| 37    | 0.641 | 82    | 0.909 | 127   | 0.164 | 172   | 0.271 | 217   | 0.133 | 262   | 0.637 | 307   | 0.900 | 352   | 0.341 |
| 38    | 0.658 | 83    | 0.896 | 128   | 0.156 | 173   | 0.274 | 218   | 0.130 | 263   | 0.657 | 308   | 0.887 | 353   | 0.340 |
| 39    | 0.676 | 84    | 0.883 | 129   | 0.149 | 174   | 0.276 | 219   | 0.128 | 264   | 0.676 | 309   | 0.873 | 354   | 0.339 |
| 40    | 0.694 | 85    | 0.868 | 130   | 0.143 | 175   | 0.278 | 220   | 0.125 | 265   | 0.696 | 310   | 0.859 | 355   | 0.338 |
| 41    | 0.712 | 86    | 0.853 | 131   | 0.138 | 176   | 0.280 | 221   | 0.124 | 266   | 0.715 | 311   | 0.844 | 356   | 0.337 |
| 42    | 0.729 | 87    | 0.838 | 132   | 0.133 | 177   | 0.281 | 222   | 0.123 | 267   | 0.733 | 312   | 0.829 | 357   | 0.337 |
| 43    | 0.746 | 88    | 0.822 | 133   | 0.130 | 178   | 0.282 | 223   | 0.123 | 268   | 0.752 | 313   | 0.813 | 358   | 0.337 |
| 44    | 0.764 | 89    | 0.805 | 134   | 0.127 | 179   | 0.282 | 224   | 0.123 | 269   | 0.770 | 314   | 0.797 | 359   | 0.337 |

Remarks:



|                   |
|-------------------|
| Exhibit No.<br>#1 |
|-------------------|

Date **20 Feb 2002**  
 Call Letters **NEW** Channel **42**  
 Location **Portland, OR**  
 Customer  
 Antenna Type **TFU-18JSC-R 3BP300**

**TABULATION OF AZIMUTH PATTERN**

Azimuth Pattern Drawing # **TFU-3BP300**

| Angle | Field | ERP (kW) | ERP (dBk) |
|-------|-------|----------|-----------|
| 0     | 0.336 | 564.5    | 27.52     |
| 10    | 0.345 | 595.1    | 27.75     |
| 20    | 0.397 | 788.0    | 28.97     |
| 30    | 0.522 | 1362.4   | 31.34     |
| 40    | 0.694 | 2408.2   | 33.82     |
| 50    | 0.859 | 3689.4   | 35.67     |
| 60    | 0.971 | 4714.2   | 36.73     |
| 70    | 0.998 | 4980.0   | 36.97     |
| 80    | 0.932 | 4343.1   | 36.38     |
| 90    | 0.788 | 3104.7   | 34.92     |
| 100   | 0.597 | 1782.0   | 32.51     |
| 110   | 0.401 | 804.0    | 29.05     |
| 120   | 0.240 | 288.0    | 24.59     |
| 130   | 0.143 | 102.2    | 20.10     |
| 140   | 0.125 | 78.1     | 18.93     |
| 150   | 0.163 | 132.8    | 21.23     |
| 160   | 0.218 | 237.6    | 23.76     |
| 170   | 0.265 | 351.1    | 25.45     |
| 180   | 0.283 | 400.4    | 26.03     |
| 190   | 0.265 | 351.1    | 25.45     |
| 200   | 0.218 | 237.6    | 23.76     |
| 210   | 0.163 | 132.8    | 21.23     |
| 220   | 0.125 | 78.1     | 18.93     |
| 230   | 0.143 | 102.2    | 20.10     |
| 240   | 0.240 | 288.0    | 24.59     |
| 250   | 0.401 | 804.0    | 29.05     |
| 260   | 0.597 | 1782.0   | 32.51     |
| 270   | 0.788 | 3104.7   | 34.92     |
| 280   | 0.932 | 4343.1   | 36.38     |
| 290   | 0.998 | 4980.0   | 36.97     |
| 300   | 0.971 | 4714.2   | 36.73     |
| 310   | 0.859 | 3689.4   | 35.67     |
| 320   | 0.694 | 2408.2   | 33.82     |
| 330   | 0.522 | 1362.4   | 31.34     |
| 340   | 0.397 | 788.0    | 28.97     |
| 350   | 0.345 | 595.1    | 27.75     |

**Maxima**

| Angle | Field | ERP (kW) | ERP (dBk) |
|-------|-------|----------|-----------|
| 68    | 1.000 | 5000.0   | 36.99     |
| 180   | 0.283 | 400.4    | 26.03     |
| 292   | 1.000 | 5000.0   | 36.99     |

**Minima**

| Angle | Field | ERP (kW) | ERP (dBk) |
|-------|-------|----------|-----------|
| 0     | 0.336 | 564.5    | 27.52     |
| 138   | 0.123 | 75.6     | 18.79     |
| 222   | 0.123 | 75.6     | 18.79     |

Remarks:

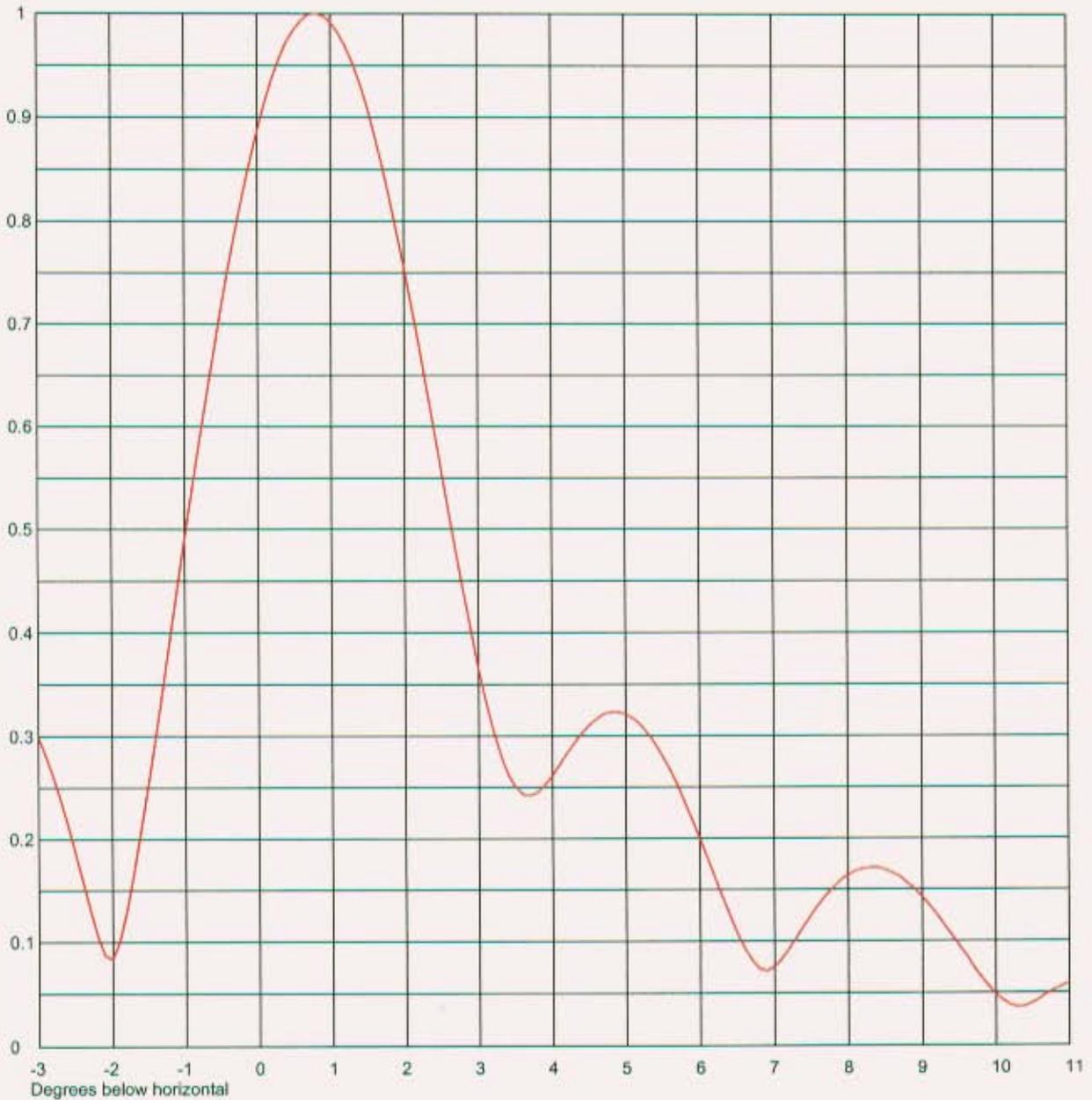


Exhibit No.  
#1

Date **20 Feb 2002**  
Call Letters **NEW** Channel **42**  
Location **Portland, OR**  
Customer  
Antenna Type **TFU-18JSC-R 3BP300**

### ELEVATION PATTERN

|                        |                        |           |                     |
|------------------------|------------------------|-----------|---------------------|
| RMS Gain at Main Lobe  | <b>17.5 (12.43 dB)</b> | Beam Tilt | <b>0.75 Degrees</b> |
| RMS Gain at Horizontal | <b>13.8 (11.40 dB)</b> | Frequency | <b>641.00 MHz</b>   |
| Calculated / Measured  |                        | Drawing # | <b>18Z17507</b>     |



Remarks:

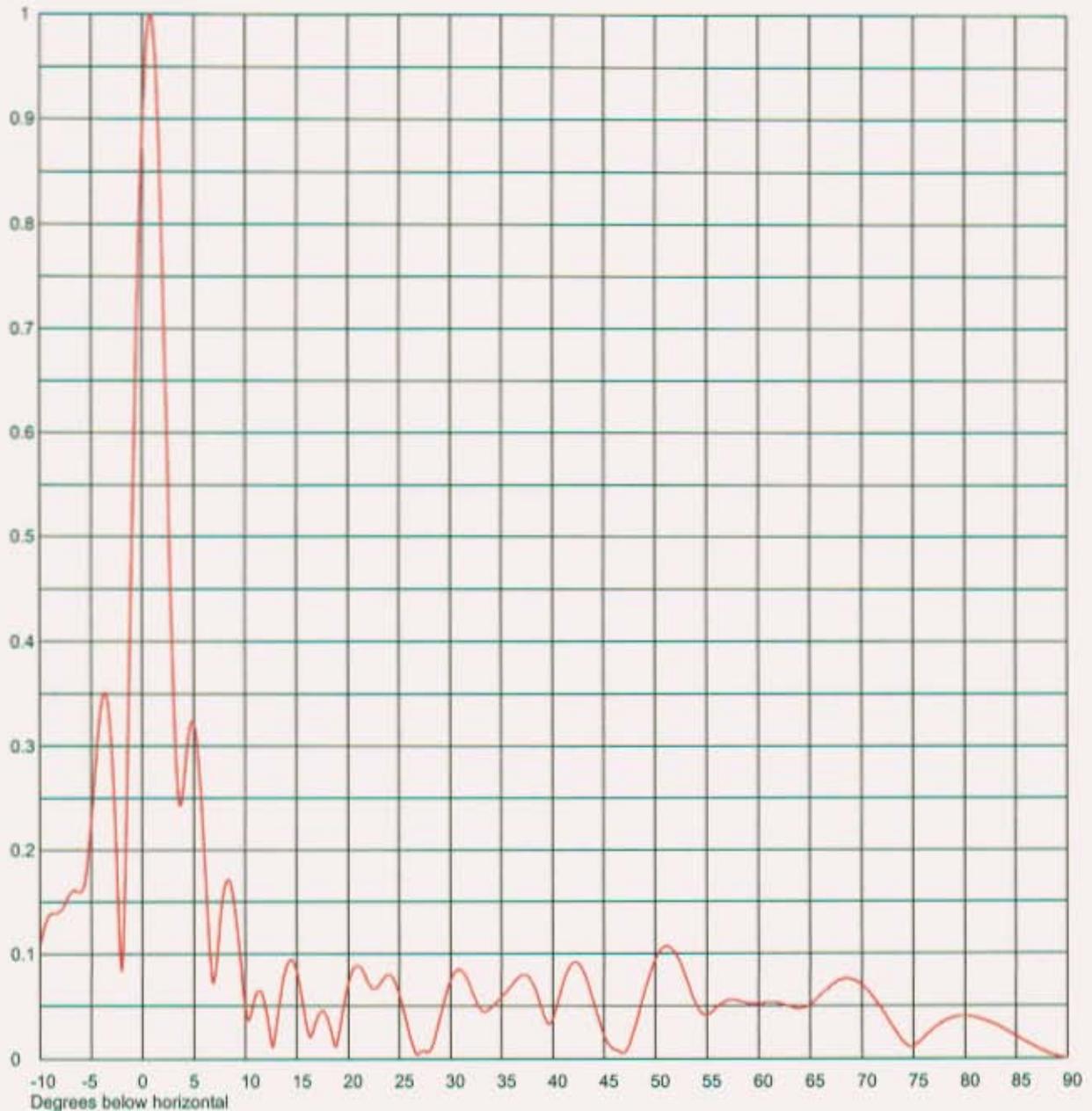


Exhibit No.  
#1

Date **20 Feb 2002**  
Call Letters **NEW** Channel **42**  
Location **Portland, OR**  
Customer  
Antenna Type **TFU-18JSC-R 3BP300**

### ELEVATION PATTERN

|                        |                        |           |                     |
|------------------------|------------------------|-----------|---------------------|
| RMS Gain at Main Lobe  | <b>17.5 (12.43 dB)</b> | Beam Tilt | <b>0.75 Degrees</b> |
| RMS Gain at Horizontal | <b>13.8 (11.40 dB)</b> | Frequency | <b>641.00 MHz</b>   |
| Calculated / Measured  |                        | Drawing # | <b>18Z17507-90</b>  |



Remarks:



Exhibit No.  
#1

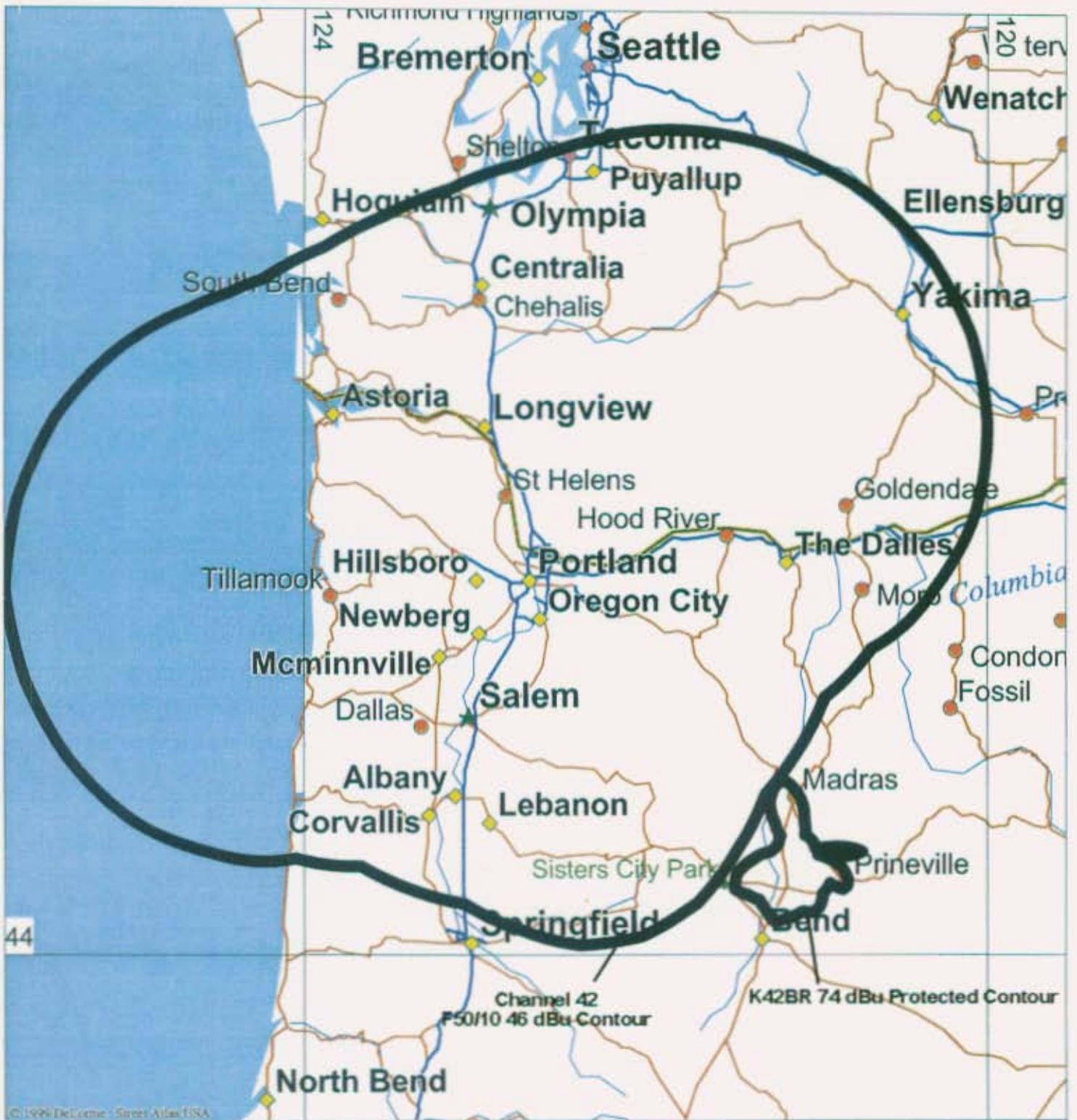
Date **20 Feb 2002**  
 Call Letters **NEW** Channel **42**  
 Location **Portland, OR**  
 Customer  
 Antenna Type **TFU-18JSC-R 3BP300**

**TABULATION OF ELEVATION PATTERN**

Elevation Pattern Drawing # **18Z17507-90**

| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.107 | 2.4   | 0.599 | 10.6  | 0.044 | 30.5  | 0.083 | 51.0  | 0.107 | 71.5  | 0.052 |
| -9.5  | 0.127 | 2.6   | 0.517 | 10.8  | 0.053 | 31.0  | 0.084 | 51.5  | 0.105 | 72.0  | 0.045 |
| -9.0  | 0.138 | 2.8   | 0.438 | 11.0  | 0.060 | 31.5  | 0.078 | 52.0  | 0.099 | 72.5  | 0.037 |
| -8.5  | 0.139 | 3.0   | 0.365 | 11.5  | 0.063 | 32.0  | 0.067 | 52.5  | 0.089 | 73.0  | 0.030 |
| -8.0  | 0.141 | 3.2   | 0.305 | 12.0  | 0.046 | 32.5  | 0.055 | 53.0  | 0.076 | 73.5  | 0.022 |
| -7.5  | 0.149 | 3.4   | 0.262 | 12.5  | 0.015 | 33.0  | 0.046 | 53.5  | 0.062 | 74.0  | 0.016 |
| -7.0  | 0.158 | 3.6   | 0.243 | 13.0  | 0.030 | 33.5  | 0.044 | 54.0  | 0.050 | 74.5  | 0.012 |
| -6.5  | 0.160 | 3.8   | 0.245 | 13.5  | 0.065 | 34.0  | 0.048 | 54.5  | 0.043 | 75.0  | 0.012 |
| -6.0  | 0.159 | 4.0   | 0.261 | 14.0  | 0.088 | 34.5  | 0.053 | 55.0  | 0.041 | 75.5  | 0.015 |
| -5.5  | 0.175 | 4.2   | 0.283 | 14.5  | 0.094 | 35.0  | 0.058 | 55.5  | 0.044 | 76.0  | 0.020 |
| -5.0  | 0.224 | 4.4   | 0.302 | 15.0  | 0.082 | 35.5  | 0.063 | 56.0  | 0.049 | 76.5  | 0.024 |
| -4.5  | 0.288 | 4.6   | 0.316 | 15.5  | 0.057 | 36.0  | 0.069 | 56.5  | 0.052 | 77.0  | 0.029 |
| -4.0  | 0.339 | 4.8   | 0.323 | 16.0  | 0.029 | 36.5  | 0.075 | 57.0  | 0.055 | 77.5  | 0.032 |
| -3.5  | 0.348 | 5.0   | 0.321 | 16.5  | 0.023 | 37.0  | 0.079 | 57.5  | 0.055 | 78.0  | 0.035 |
| -3.0  | 0.299 | 5.2   | 0.311 | 17.0  | 0.038 | 37.5  | 0.078 | 58.0  | 0.055 | 78.5  | 0.037 |
| -2.8  | 0.261 | 5.4   | 0.292 | 17.5  | 0.045 | 38.0  | 0.072 | 58.5  | 0.053 | 79.0  | 0.039 |
| -2.6  | 0.214 | 5.6   | 0.267 | 18.0  | 0.038 | 38.5  | 0.060 | 59.0  | 0.052 | 79.5  | 0.040 |
| -2.4  | 0.159 | 5.8   | 0.235 | 18.5  | 0.019 | 39.0  | 0.045 | 59.5  | 0.052 | 80.0  | 0.040 |
| -2.2  | 0.105 | 6.0   | 0.200 | 19.0  | 0.018 | 39.5  | 0.033 | 60.0  | 0.052 | 80.5  | 0.040 |
| -2.0  | 0.083 | 6.2   | 0.162 | 19.5  | 0.045 | 40.0  | 0.037 | 60.5  | 0.052 | 81.0  | 0.039 |
| -1.8  | 0.130 | 6.4   | 0.125 | 20.0  | 0.070 | 40.5  | 0.053 | 61.0  | 0.053 | 81.5  | 0.037 |
| -1.6  | 0.210 | 6.6   | 0.093 | 20.5  | 0.085 | 41.0  | 0.071 | 61.5  | 0.053 | 82.0  | 0.036 |
| -1.4  | 0.300 | 6.8   | 0.073 | 21.0  | 0.088 | 41.5  | 0.084 | 62.0  | 0.052 | 82.5  | 0.034 |
| -1.2  | 0.395 | 7.0   | 0.075 | 21.5  | 0.082 | 42.0  | 0.091 | 62.5  | 0.051 | 83.0  | 0.032 |
| -1.0  | 0.490 | 7.2   | 0.092 | 22.0  | 0.071 | 42.5  | 0.090 | 63.0  | 0.049 | 83.5  | 0.029 |
| -0.8  | 0.583 | 7.4   | 0.114 | 22.5  | 0.066 | 43.0  | 0.082 | 63.5  | 0.048 | 84.0  | 0.027 |
| -0.6  | 0.671 | 7.6   | 0.135 | 23.0  | 0.069 | 43.5  | 0.070 | 64.0  | 0.047 | 84.5  | 0.024 |
| -0.4  | 0.753 | 7.8   | 0.152 | 23.5  | 0.076 | 44.0  | 0.054 | 64.5  | 0.048 | 85.0  | 0.021 |
| -0.2  | 0.825 | 8.0   | 0.164 | 24.0  | 0.079 | 44.5  | 0.037 | 65.0  | 0.051 | 85.5  | 0.018 |
| 0.0   | 0.887 | 8.2   | 0.170 | 24.5  | 0.074 | 45.0  | 0.022 | 65.5  | 0.055 | 86.0  | 0.016 |
| 0.2   | 0.936 | 8.4   | 0.171 | 25.0  | 0.061 | 45.5  | 0.013 | 66.0  | 0.060 | 86.5  | 0.013 |
| 0.4   | 0.972 | 8.6   | 0.166 | 25.5  | 0.043 | 46.0  | 0.009 | 66.5  | 0.065 | 87.0  | 0.010 |
| 0.6   | 0.993 | 8.8   | 0.156 | 26.0  | 0.023 | 46.5  | 0.007 | 67.0  | 0.069 | 87.5  | 0.008 |
| 0.8   | 1.000 | 9.0   | 0.142 | 26.5  | 0.007 | 47.0  | 0.006 | 67.5  | 0.072 | 88.0  | 0.006 |
| 1.0   | 0.992 | 9.2   | 0.125 | 27.0  | 0.006 | 47.5  | 0.014 | 68.0  | 0.075 | 88.5  | 0.004 |
| 1.2   | 0.969 | 9.4   | 0.105 | 27.5  | 0.007 | 48.0  | 0.029 | 68.5  | 0.076 | 89.0  | 0.002 |
| 1.4   | 0.933 | 9.6   | 0.085 | 28.0  | 0.008 | 48.5  | 0.046 | 69.0  | 0.075 | 89.5  | 0.001 |
| 1.6   | 0.884 | 9.8   | 0.065 | 28.5  | 0.020 | 49.0  | 0.064 | 69.5  | 0.073 | 90.0  | 0.000 |
| 1.8   | 0.824 | 10.0  | 0.048 | 29.0  | 0.039 | 49.5  | 0.081 | 70.0  | 0.069 |       |       |
| 2.0   | 0.755 | 10.2  | 0.038 | 29.5  | 0.058 | 50.0  | 0.094 | 70.5  | 0.065 |       |       |
| 2.2   | 0.679 | 10.4  | 0.037 | 30.0  | 0.073 | 50.5  | 0.103 | 71.0  | 0.059 |       |       |

Remarks:



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Mag 7.00

Wed Feb 20 12:36 2002

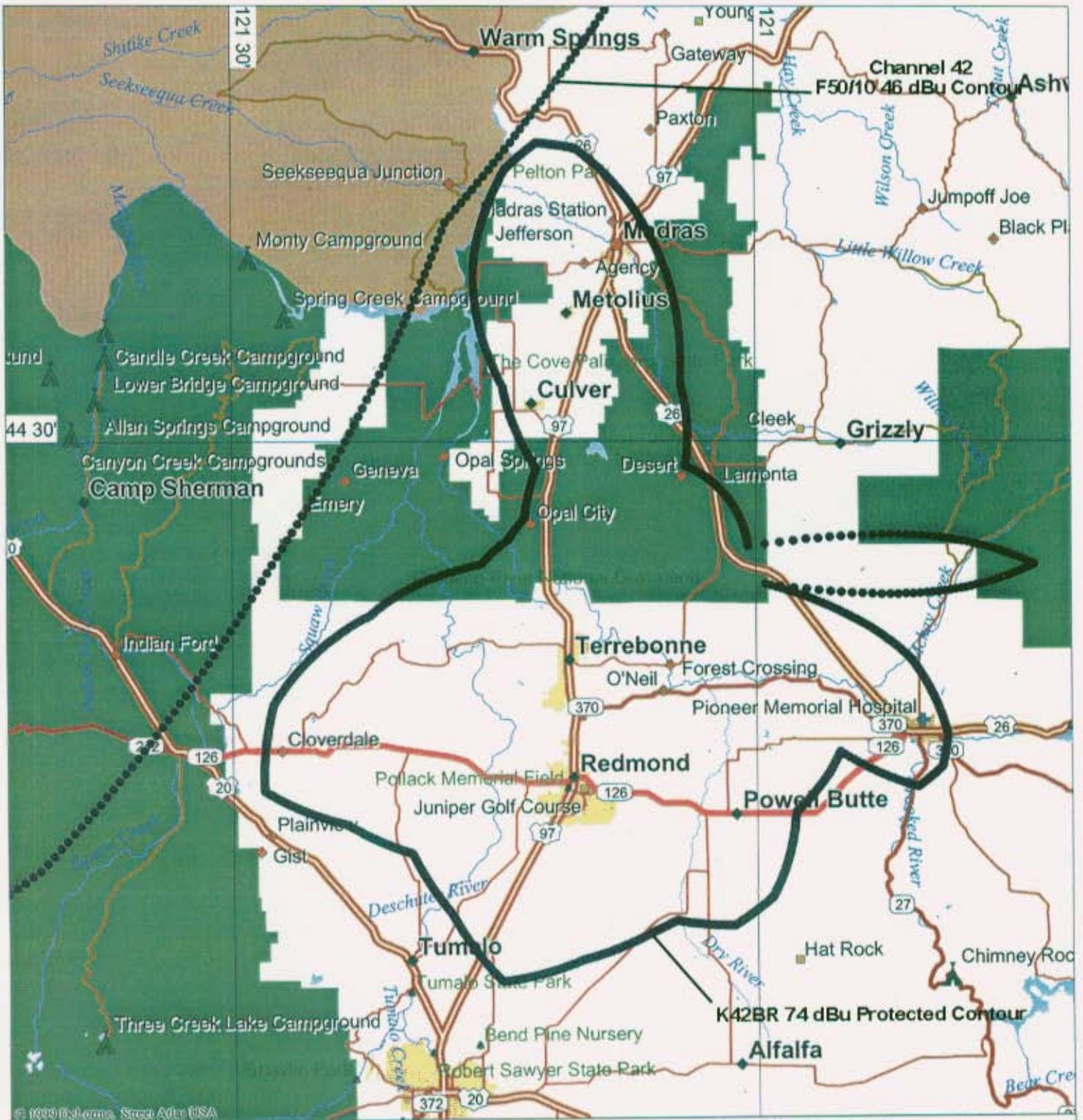
Scale 1:2,400,000 (at center)

50 Miles

50 KM

- Major Road
- Limited Access
- ★ State Capital
- ◆ Large City
- ▲ Park/Reservation
- ◆ Mega City
- ◆ Locale
- ◆ City
- County Seat
- State Boundary
- Land
- Water
- River/Canal

Protection of Class A Station  
K42BR Terrebonne-Bend, OR  
by  
Proposed Channel 42  
Portland, OR

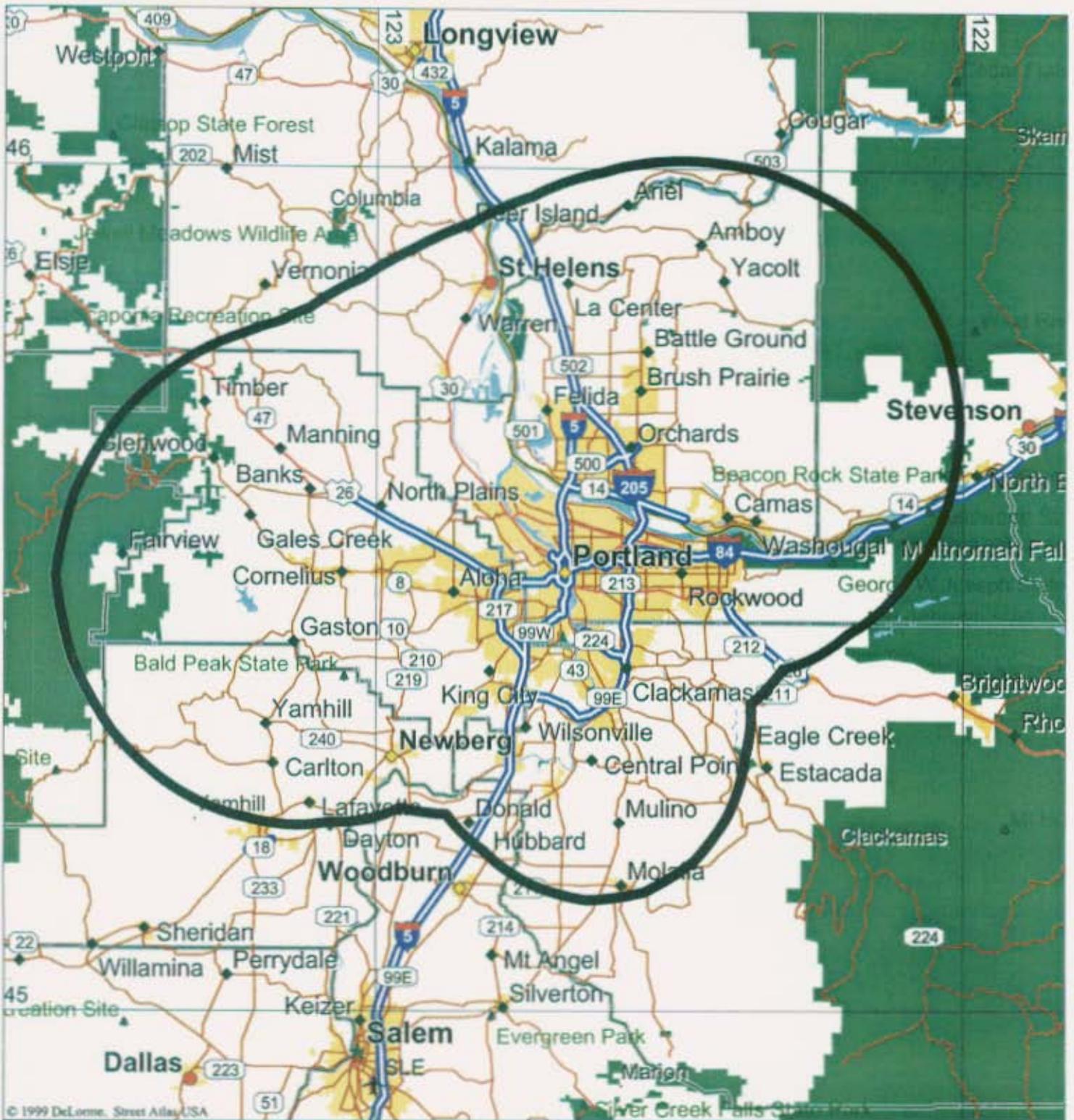


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Mag 10.00  
 Wed Feb 20 12:39 2002  
 Scale 1:400,000 (at center)  
 5 Miles  
 10 KM

- |                     |                   |
|---------------------|-------------------|
| Major Connector     | Small Town        |
| Major Forest Road   | Hospital          |
| State Route         | Park/Reservation  |
| Primary State Route | Campground        |
| Glacier             | Locale            |
| US Highway          | Population Center |
| Point of Interest   | Land              |
| County Seat         | Water             |

**Protection of Class A Station  
 K42BR Terrebonne-Bend, OR  
 by  
 Proposed Channel 42  
 Portland, OR  
 Expanded View**



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Mag 9.00  
 Wed Feb 20 12:54 2002  
 Scale 1:700,000 (at center)  
 10 Miles  
 20 KM

- |                           |                       |
|---------------------------|-----------------------|
| Major Road                | Park/Reservation      |
| Major Highway             | City                  |
| Ferry                     | Sched Service Airport |
| Glacier                   | Small Town            |
| Interstate/Limited Access | County Boundary       |
| County Seat               | State Boundary        |
| State Capital             | Population Center     |
| Large City                | Lake                  |

**Proposed Channel 42  
 Portland, OR  
 City Grade Contour  
 ERP 5000 kW RCAMSL 516 M  
 Antenna: Dielectric TFU-18JSC-R**

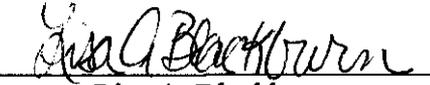
**CERTIFICATE OF SERVICE**

I, Lisa A. Blackburn, a secretary with the law firm of Womble Carlyle Sandridge & Rice, PLLC, do hereby certify that a true and correct copy of the foregoing Supplement to Petition for Rulemaking was served by U.S. mail, first class, postage-prepaid on the 7th day of March, 2002, on the following individuals:

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\_\_\_\_\_  
Lisa A. Blackburn