ORIGINAL

DOCKET FILE COPY ORIGINAL

ANN BAVENDER*
ANNE GOODWIN CRUMP*
VINCENT J. CURTIS, JR.
RICHARD J. ESTEVEZ
PAUL J. FELDMAN
ERIC FISHMAN
RICHARD HILDRETH
FRANK R. JAZZO
ANDREW S. KERSTING*
EUGENE M. LAWSON, JR.
HARRY C. MARTIN
GEORGE PETRUTSAS
LEONARD R. RAISH
JAMES P. RILEY
KATHLEEN VICTORY
HOWARD M. WEISS

* NOT ADMITTED IN VIRGINIA

FLETCHER, HEALD & HILDRETH, P.L.C.

ATTORNEYS AT LAW

11th FLOOR, 1300 NORTH 17th STREET

ARLINGTON, VIRGINIA 22209-3801

(703) 812-0400

TELECOPIER

(703) 812-0486

INTERNET

office@fhh-telcomlaw.com

FRANK U. FLETCHER
(1939-1985)
ROBERT L. HEALD
(1956-1983)
PAUL D.P. SPEARMAN
(1936-1962)
FRANK ROBERSON
(1936-1961)
RUSSELL ROWELL
(1948-1977)

RETIRED
EDWARD F. KENEHAN

CONSULTANT FOR INTERNATIONAL AND INTERGOVERNMENTAL AFFAIRS
SHELDON J. KRYS
U. S. AMBASSADOR (ret.)

OF COUNSEL
EDWARD A. CAINE*
MITCHELL LAZARUS*
EDWARD S. O'NEILL*
JOHN JOSEPH SMITH*

WRITER'S DIRECT

April 20, 1998

BY HAND DELIVERY
Magalie Salas, Esquire
Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

RECEIVED

APR 21 1998

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service
--
MM Docket No. 87-268

Dear Ms. Salas:

On April 20, 1998, there was filed in the referenced proceeding a "Petition for Reconsideration" on behalf of South Central Communications Corporation and other petitioning parties. As there shown, the original of the associated engineering showing was not then available by reason of weather induced delay in its delivery.

There is submitted herewith for association with the subject petition the original of such engineering showing, entitled "Exhibit 1: Technical Discussion in Support of Request for Modification of DTV Table of Allotments With Regard to Channel 26, DTV, Knoxville, TN."

Please advise the undersigned should there be any questions respecting this matter.

Very truly yours,

Edward S. O'Neill
Counsel for South Central
Communications Corporation

EON/dd
Enclosure

No. of Copies rec'd 0
List ABCDE

Exhibit 1: Technical Discussion in Support of Request for Modification of DTV Table of Allotments With Regard to Channel 26 DTV, Knoxville TN.

This analysis is presented in support of a modification request with regard to a change in the Digital Table of Allotments as presented in the ***Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order (FCC 98-24, MM Docket #87-268)****. As contracted by South Central Communications Corp., Third Coast Broadcasting has performed a computerized analysis to present an alternative channel for the DTV allotment in the Knoxville Tennessee area. Through this analysis, channel 18 was found as an alternative to channel 26 and the following discusses the methods and results of this analysis.*

Methodology:

In the channel analysis, the table of allotments from the MO&O was input into a slightly modified version of the FCC "Anneal" program, the FORTRAN program which the FCC used to allocate the digital channels in DTV proceedings and which resulted in the final DTV table of allotments. The full United States input file was used in order to avoid any ripple effect caused by far distant stations on the calculation ability of the program. This Anneal program was modified with the addition of an "nlpok" logical function which, when presented with proper data, forces Anneal to "dodge" a selected channel and to mathematically choose an alternative channel, using the same criteria as the first channel. This nlpok algorithm has been submitted to the Commission and is a matter of public record. The only data input to nlpok was channel 26D, Knoxville TN and all other markets were left as indicated in the Table of Allotments. The Anneal program indicated channel 18 as its result.

Channel 18 was then input into the "flr" program in accordance with the criteria of FCC publication OET-69 (flr: FCC Longley-Rice program, as revised, March 16, 1998) to determine the actual interference percentages of the baseline channel 26 selection and then the channel 18 modification. In this analysis, only the channels which were affected by either of the channel 26 or channel 18 were used for the result. In running the flr program with channel 26 and then channel 18, any differences in population coverage or areas covered would be obvious. The output of the flr program run is submitted as Exhibit #2.

Results:

After running the flr program, the alternative channel 18 was found to change the coverage of the initially proposed channel 26 with a decrease of 2.9 percent of population and a decrease of 3.8 percent of coverage area. The other stations affected by this proposed channel change were as follows:

```
Analysis of: 15N TN KNOXVILLE
                                  POPULATION    %    AREA (sq km)
   not affected by terrain losses    923885              19620.7
   lost to all IX (18)                 5278   0.57%        257.0
   lost to all IX (26)                 5106   0.55%        248.9
total (difference):                     172   0.02%  *       9.0

Analysis of: 17A TN KNOXVILLE
   HAAT  513.0 m, ATV ERP   92.1 kW
                                  POPULATION          AREA (sq km)
   not affected by terrain losses    935329              20395.5
   lost to all IX (18)                55505   5.93%       1601.9
   lost to all IX (26)                 5567   0.59%        449.7
total (difference):                   49938   5.34%       1152.2
Analysis of: 18N GA CHATSWORTH
                                  POPULATION          AREA (sq km)
   not affected by terrain losses   1510220              19277.8
   lost to all IX (18)               613414  40.86%       4559.9
   lost to all IX (26)               488977  32.38%       2467.1
total (difference):                  124437   8.48%       2092.8
Analysis of: 18N KY LEXINGTON
                                  POPULATION          AREA (sq km)
   not affected by terrain losses    624727              12935.3
   lost to all IX (18)                 5155   0.825%       388.0
   lost to all IX (26)                 3692   0.591%       268.0
total (difference):                    1463   0.234% *     120.0
Analysis of: 19N TN KINGSPORT
                                  POPULATION          AREA (sq km)
   not affected by terrain losses    711314              18697.4
   lost to all IX (18)                 6943   0.976%       302.4
   lost to all IX (26)                 6731   0.946%       290.3
total (difference):                     212   0.030%  *     12.1
Analysis of: 27A TN KINGSPORT
   HAAT  707.0 m, ATV ERP   54.3 kW
                                  POPULATION          AREA (sq km)
   not affected by terrain losses    731431              19532.1
   lost to all IX (18)                38771   5.30%       1286.3
   lost to all IX (26)                38914   5.32%       1290.3
total (difference):                    -143  -0.02%   *    -4.0
Analysis of: 25A NC ASHEVILLE
   HAAT  816.0 m, ATV ERP  101.0 kW
                                  POPULATION          AREA (sq km)
   not affected by terrain losses   1506452              23913.9
   lost to all IX (18)                39369   2.61%        956.9
   lost to all IX (26)                56595   3.76%       1211.2
total (difference):                  -17226  -1.15%   * - 254.3

Note: * indicates compliance with FCC de-minimus standard for interference.
```

According to the preceding analysis, the proposal complies with the FCC's deminimus criteria for all stations except the original channel 26, Knoxville TN, channel 18, Chatsworth GA and channel 17 Knoxville TN. If this proposed channel were operated independently from channel 6 at a reduced power level from the 1 Mw proposed, it is probable that the interference level would be reduced on both of channel 18 and channel 17. If used at the 1 Mw power level, this channel selection would result in an increased interference level for these two stations. However, in proposing a reduced power level of 100 Kw ERP, although the coverage replication of the WATE channel 6 station is below the initial 96.1 percent, this channel meets all de-minimus requirements for interference protection of other stations.

The proposed reduced power facilities are as follows:

Analysis of: 6N TN KNOXVILLE (unchanged)

	POPULATION	AREA (sq km)
within Noise Limited Contour	1421492	42357.1
not affected by terrain losses	1246834	35541.0
lost to NTSC IX	66112	2519.4
lost to additional IX by ATV	0	0.0
lost to all IX	66112	2519.4

Analysis of: 18A TN KNOXVILLE
HAAT 454.0 m, ATV ERP 100.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1421492	42357.1
not affected by terrain losses	1141078	29828.1
lost to NTSC IX	63905	2439.2
lost to additional IX by ATV	2722	144.4
lost to ATV IX only	11482	549.6
lost to all IX	66627	2583.6
percent match ATV/NTSC	88.5	80.1

The interference with regard to the two channels previously outside of the deminimus standards:

Analysis of: 17A TN KNOXVILLE
HAAT 513.0 m, ATV ERP 92.1 kW

	POPULATION			AREA (sq km)
not affected by terrain losses	935329			20395.5
lost to all IX (18 @ 100Kw)	13565	1.45%		706.6
lost to all IX (26)	5567	0.59%		449.7
total (difference):	7998	0.86%	*	1152.2

Analysis of: 18N GA CHATSWORTH

	POPULATION			AREA (sq km)
not affected by terrain losses	1510220			19277.8
lost to all IX (18 @ 100Kw)	514911	34.09%		3255.9
lost to all IX (26)	488977	32.38%		2467.1
total (difference):	25934	1.71%	*	2092.8

In both of these cases, the additional interference to the coverage of these stations is below 2% and is minimal, thereby indicating that a DTV allotment is possible at this location for this channel, at reduced maximum power. At this power level, very minimal interference is predicted to occur, and an additional 1,074,451 people could be served with the use of channel 18 in the Knoxville, Tennessee market.

Robert W. Fisher
Communications Consultant

Exhibit #2: Flr Analysis

Channel 18:

```
#  Comments start with the pound sign which may be at the beginning
#  of the line or inside it.  Everything between the pound sign and
#  the next newline is ignored.

#  Empty lines are also ignored.

#  Curly brackets surround name of highest category of input data.
#  Square brackets denote subcategories, and parentheses denote a
#  third level of subcategory.

#  Data lines, like those specifying TV station vertical patterns
#  below, are read as vectors.  The components are separated by white
#  space and character strings are quoted.  The leading component may
#  be the vector name enclosed in parentheses.
#
#  The position of data items is critical because the program uses
#  format statements to read this file.  The program writes out what it
#  reads, so if you have a problem compare input with output to make
#  sure the data read by the program is correct.
#

{Macros}

[TV Engineering Data Base]
(TVDB) "tv_main.dbs"

[Directional Antenna Data Base]
(DADB) "../data/dadb/dadb.lis"

[HAAT Data Base]
(HTDB) "haat_db.dbs"

[Propagation curve data point files]
#
#  The order of the following files needs to be
#  preserved F50/50, F50/10, F50/90 with file
#  low vhf, high vhf uhf for each set of curves
#
(PCDB)
../data/r6602/f55lv.dat
../data/r6602/f55hv.dat
../data/r6602/f55u.dat
../data/r6602/f51lv.dat
../data/r6602/f51hv.dat
../data/r6602/f51u.dat
../data/r6602/f59lv.dat
../data/r6602/f59hv.dat
../data/r6602/f59u.dat

[Population data files path]
(POPDB) "../data/population"

[List of stations to be analyzed for coverage and IX]
#
#  The following file contains the list of data base
#  stations to analyze
#
```

```
(Analysis List File) "stations.dat"

{Program Options}
#  For Replicate = no, DTV facilities will be determined from file
#  tv_main.dbs unless the ERP given in that file is -1.0.  In the
#  latter case, the "no" is overridden.
#
(Replicate) "no"

(Propagation Curves) #Define which FCC curves are used in the analysis

#  Define curves to use for service prediction and interference.
#  Define for both NTSC and ATV.
#  Values are % time (F50/50, F50/10 F50/90).
#
# NTSC Curves
# Service  Interference
#
    50.0      10.0
#
# ATV Curves
# Service  Interference
#
    90.0      10.0

(Longley-Rice Percentiles) #Define location/time/confidence % for L-R comp.

#  Need to define % to use for service prediction and interference
#  Need to define for both NTSC and ATV
#
# NTSC Computations
#
#        Service                      Interference
#
#   Time  Location  Confidence     Time  Location  Confidence
#
    50.0    50.0       50.0        10.0    50.0       50.0

# ATV Computations
#
#        Service                      Interference
#
#   Time  Location  Confidence     Time  Location  Confidence
#
    90.0    50.0       50.0        10.0    50.0       50.0

(Receive Antenna Use)
#  State if receive antenna patterns are to be considered
#
# Apply to NTSC      Apply to ATV
#
       "yes"             "yes"

(Apply Xmit Vertical Pattern)
#
#  State if vertical antenna patterns are to be considered
#
# Apply to NTSC      Apply to ATV
#
       "yes"             "yes"

(Apply Xmit Horizontal Pattern)
```

```
#
#  State if horizontal antenna patterns are to be considered.  If
#  Replicate was set to "no" above then the switch for ATV here is
#  ignored.

#
# Apply to NTSC      Apply to ATV
#
       "yes"              "yes"

(Analysis Radials)
#
#  Noise limited contours are determined by calculating the distance to
#  the contour on a number of evenly spaced radials.  Define the number
#  to use here.  The number must be between 36 and 360.
#
#  Put number in columns 8-10
#
# Number of radials
#
        72

(Channel Relationships Considered)
#
#  Define what channel relationships to consider when analyzing
#  NTSC to NTSC interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     yes/no
# ---------------    ------
#
(N-to-N)
    +0                "yes"
    +1                "yes"
    +2                "yes"
    +3                "yes"
    +4                "yes"
    +5                "no"
    +7                "yes"
    +8                "yes"
    -1                "yes"
    -2                "yes"
    -3                "yes"
    -4                "no"
    -5                "no"
    -7                "yes"
    -8                "yes"
   +14                "yes"
   +15                "yes"

#
#  Define what channel relationships to consider when analyzing
#  NTSC to ATV interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     yes/no
# ---------------    ------
#
(N-to-A)
    +0                "yes"
```

```
    +1                  "yes"
    +2                  "no"
    +3                  "no"
    +4                  "no"
    +5                  "no"
    +7                  "no"
    +8                  "no"
    -1                  "yes"
    -2                  "no"
    -3                  "no"
    -4                  "no"
    -5                  "no"
    -7                  "no"
    -8                  "no"
   +14                  "no"
   +15                  "no"

#
#  Define what channel relationships to consider when analyzing
#  ATV to NTSC interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     yes/no
# ---------------    ------
#
(A-to-N)
    +0                  "yes"
    +1                  "yes"
    +2                  "yes"
    +3                  "yes"
    +4                  "yes"
    +5                  "no"
    +7                  "yes"
    +8                  "yes"
    -1                  "yes"
    -2                  "yes"
    -3                  "yes"
    -4                  "yes"
    -5                  "no"
    -7                  "yes"
    -8                  "yes"
   +14                  "yes"
   +15                  "yes"

#
#  Define what channel relationships to consider when analyzing
#  ATV to ATV interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     yes/no
# ---------------    ------
#
(A-to-A)
    +0                  "yes"
    +1                  "yes"
    +2                  "no"
    +3                  "no"
    +4                  "no"
    +5                  "no"
    +7                  "no"
```

```
    +8                  "no"
    -1                  "yes"
    -2                  "no"
    -3                  "no"
    -4                  "no"
    -5                  "no"
    -7                  "no"
    -8                  "no"
    14                  "no"
    15                  "no"
#
#  Indicate how problem area is to be defined.  It can be defined as
#  the NLC of a station in in the data base or by a rectangular area
#  with geographical coordinate boundaries.  When the program is run in
#  the pairwise mode (compile-time option) the problem area for each
#  pair is automatically set to the NLC of the NTSC station, bypassing
#  the choice made here.
#
#  Define the problem area below by using the words Station or Rectangle
#  in quotes.  The case is necessary.
#
(Problem Area Definition) "Station"

(Problem Area Station)
#
#  Station is defined by city, state, channel, ATV or NTSC
#  Place each in quotes - limit on city name is 20 characters
#
#       city            state    channel     ATV/NTSC
#
      "Denver"          "CO"      "32"         "ntsc"

(Problem Area Rectangle)
#  SE Latitude  SE Longitude    NW Latitude  NW Longitude
   "39-48-19"   "72-49-54"      "41-36-38"   "75-12-29"

#
#  The following value is the size of the cells within the the problem
#  area grid.  The cells are square so only a single value is needed.
#  The value is in km and is the length of the cell side.
#

(Problem Area Cell Size)   2.000


{TV Station Parameters}

[Vertical Pattern]

(Type Vertical Pattern) "FCC"

#          Declination Angles in Degrees      Relative Gain
#          ------------------------------   ------------------
# Band     Tilt       Theta(1)    Theta(2)   Volts(1)  Volts(2)
#-------   --------   --------    --------   --------  --------
(Low VHF)   0.00       7.00        20.00      0.40      0.22
(High VHF)  0.00       3.00         6.00      0.40      0.22
(UHF)       0.50       2.50         5.00      0.40      0.16

(Type Vertical Pattern) "PSWP3"

#
```

```
# ANGLE     L_VHF_N   L_VHF_A   H_VHF_N   H_VHF_A    UHF_N     UHF_A
#
   0.75     1.000     1.000     1.000     1.000     1.000     1.000
   1.50     1.000     1.000     0.950     0.970     0.740     0.880
   2.00     0.990     0.990     0.860     0.940     0.520     0.690
   2.50     0.980     0.980     0.730     0.890     0.330     0.460
   3.00     0.970     0.970     0.600     0.820     0.220     0.260
   3.50     0.950     0.950     0.470     0.730     0.170     0.235
   4.00     0.930     0.930     0.370     0.650     0.150     0.210
   5.00     0.880     0.880     0.370     0.470     0.130     0.200
   6.00     0.820     0.820     0.370     0.330     0.110     0.150
   7.00     0.740     0.740     0.370     0.280     0.110     0.150
   8.00     0.637     0.637     0.310     0.280     0.110     0.150
   9.00     0.570     0.570     0.220     0.280     0.110     0.150
  10.00     0.480     0.480     0.170     0.250     0.110     0.150

(Pattern Selection) "PSWP3" #Set to FCC or PSWP3 to select pattern

[Horizontal Pattern]
#  Source File will always be same as TVDB.
#  Whether a horizontal pattern is used or not used is set in the Program
#  Options section above.
#
() #This is required so the input routine knows to go on the next section

[HAAT]
(Source File) "HTDB" #If TVDB use single value, if HTDB use computed values

(Number of radials used to determine HAAT)   8 #Only used with HTDB (MAX 360)

#                      Minimum Height in Meters
#                      ------------------------
#                      Low VHF  High VHF  UHF
(NTSC Minima)            33.0     33.0      33.0
(Prototype ATV)         305.0    305.0     365.0

[ERP]
(Source File) "TVDB"
#                      ERP limits in Kilowatts
#                      ------------------------
#                      Low VHF  High VHF  UHF
(NTSC Minima)             0.1      0.1       0.1
(ATV Minima)              1.0      3.2      50.0
(Prototype ATV)          45.0    160.0    1000.0
(ATV Maxima)            100.0    316.0    1000.0
(Vacant Allotments)       0.0      0.0       0.0

{Receiving Antenna}

[Patterns]

(Pattern Type) "CCIR"

#            Azimuth Angles in Degrees              Relative Gain, dB
#          ------------------------------  ---------------------------------
# Band     Phi(1)  Phi(2)  Phi(3)  Phi(4)  Gain(1)  Gain(2)  Gain(3)  Gain(4)
#-------   ------  ------  ------  ------  -------  -------  -------  -------
(Low VHF)    0.0    50.0    70.0    90.0     0.0      0.0      -6.0     -6.0
(High VHF)   0.0    25.0    60.0    90.0     0.0      0.0     -12.0    -12.0
(UHF)        0.0    20.0    60.0    90.0     0.0      0.0     -16.0    -16.0

(Pattern Type) "PSWP3"
```

```
#         Front-to-back Ratios, dB
#         ------------------------
#         Low VHF  High VHF   UHF
#         -------  --------  -----
(NTSC)       6.0      6.0      6.0
(ATV)       10.0     12.0     14.0
(Exponent)   4.0

#         Receive Antenna Gain, dB
#          ------------------------
#         Low VHF  High VHF   UHF
#         -------  --------  -----
(NTSC)       0.0      0.0      0.0
(ATV)        4.0      6.0     10.0

[Height]
(Rooftop)   10.0 (Rooftop)   10.0  #Meters above ground

[Pattern to be Used]

(Pattern Selection) "PSWP3" #Set to PSWP3 or CCIR to select pattern

{Noise Threshold} #Field strength in dB relative to 1 microvolt/meter

[NTSC]
(Low VHF)   47.00
(High VHF)  56.00
(UHF)       64.00

[ATV]
(Low VHF)   28.00
(High VHF)  36.00
(UHF)       41.00

{Desired Signal Levels} #dB relative to 1 microvolt/meter

[NTSC]
#           Low VHF  High VHF   UHF
#           -------  --------  -----
(Moderate)  68.00     71.00    74.000 #Grade A levels
(Strong)    74.00     77.00    80.000 #Principal City

[ATV]
#           Low VHF  High VHF   UHF
#           -------  --------  -----
(Moderate)  53.00     52.00    64.000 #Arbitrary values--further
(Strong)    58.00     58.00    70.000 #study required.

{D/U Ratios}  #Use -1000.0 dB for missing values.

[N-to-N]
#
#  Weak - Ratio for Weak Desired Level
#  Moderate - Ratio for Moderate Desired Level
#  Strong - Ratio for Strong Desired Level
#
#  Weak is for regular type computations.  Moderate and Strong are used
#  for special calculations.
#
#  It is important that the order below is preserved:
#  co-channel first, +1, +2, ..., +8, -1, -2, ..., -8, +14, +15.
#
```

```
# Offset       Weak     Moderate      Strong
# ------       ----     --------      ------
#
(Ratios)
     0        28.00        28.00       28.00
     1       -13.00       -13.00      -13.00
     2       -29.00       -29.00      -29.00
     3       -34.00       -34.00      -34.00
     4       -23.00       -23.00      -23.00
     5     -1000.00     -1000.00    -1000.00
     7       -33.00       -33.00      -33.00
     8       -41.00       -41.00      -41.00
    -1        -3.00        -3.00       -3.00
    -2       -26.00       -26.00      -26.00
    -3       -33.00       -33.00      -33.00
    -4     -1000.00     -1000.00    -1000.00
    -5     -1000.00     -1000.00    -1000.00
    -7       -30.00       -30.00      -30.00
    -8       -32.00       -32.00      -32.00
    14       -25.00       -25.00      -25.00
    15        -9.00        -9.00       -9.00


[A-to-N]
#
#  Weak - Ratio for Weak Desired Level
#  Moderate - Ratio for Moderate Desired Level
#  Strong - Ratio for Strong Desired Level
#
# Offset       Weak     Moderate      Strong
# ------       ----     --------      ------
#
(Ratios)
     0        34.00        34.00       34.00
     1       -17.00       -17.00      -17.00
     2       -28.00       -28.00      -28.00
     3       -34.00       -34.00      -34.00
     4       -25.00       -25.00      -25.00
     5     -1000.00     -1000.00    -1000.00
     7       -43.00       -43.00      -43.00
     8       -43.00       -43.00      -43.00
    -1       -14.00       -14.00      -14.00
    -2       -24.00       -24.00      -24.00
    -3       -30.00       -30.00      -30.00
    -4       -34.00       -34.00      -34.00
    -5     -1000.00     -1000.00    -1000.00
    -7       -35.00       -35.00      -35.00
    -8       -32.00       -32.00      -32.00
    14       -33.00       -33.00      -33.00
    15       -31.00       -31.00      -31.00

[N-to-A]
#
#  Weak - Ratio for Weak Desired Level
#  Moderate - Ratio for Moderate Desired Level
#  Strong - Ratio for Strong Desired Level
#
# Offset       Weak     Moderate      Strong
# ------       ----     --------      ------
#
(Ratios)
     0         2.00         2.00        2.00
```

```
     1       -49.00       -49.00      -49.00
     2       -59.86       -59.86      -59.86
     3       -62.49       -62.49      -62.49
     4       -58.00       -58.00      -58.00
     5     -1000.00     -1000.00    -1000.00
     7       -58.00       -58.00      -58.00
     8       -58.00       -58.00      -58.00
    -1       -48.00       -48.00      -48.00
    -2       -62.45       -62.45      -62.45
    -3       -61.79       -61.79      -61.79
    -4       -58.00       -58.00      -58.00
    -5     -1000.00     -1000.00    -1000.00
    -7       -58.00       -58.00      -58.00
    -8       -58.00       -58.00      -58.00
    14       -58.00       -58.00      -58.00
    15       -58.00       -58.00      -58.00

[A-to-A]
#
#  Weak - Ratio for Weak Desired Level
#  Moderate - Ratio for Moderate Desired Level
#  Strong - Ratio for Strong Desired Level
#
#  Adjacent channel values used for 6th R&O table were -43 dB for
#  n+1, -42 dB for n-1.  The values below allow for degradation from
#  transmitter splatter.  They are about 20 dB poorer.
#
# Offset       Weak     Moderate      Strong
# ------       ----     --------      ------
#
(Ratios)
     0        15.00        15.00       15.00
     1       -21.00       -21.15      -21.15
     2       -59.13       -59.13      -59.13
     3       -61.53       -61.53      -61.53
     4       -55.40       -55.40      -55.40
     5     -1000.00     -1000.00    -1000.00
     7       -63.00       -63.00      -63.00
     8       -62.40       -62.40      -62.40
    -1       -23.00       -23.09      -23.09
    -2       -60.52       -60.52      -60.52
    -3       -60.61       -60.61      -60.61
    -4       -60.61       -60.61      -60.61
    -5     -1000.00     -1000.00    -1000.00
    -7       -63.00       -63.00      -63.00
    -8       -62.80       -62.80      -62.80
    14       -63.00       -63.00      -63.00
    15       -62.90       -62.90      -62.90


{Maximum Analysis Distance}
#
#  Define by channel relationships the maximum distance from an
#  undesired station to an analysis point.  Stations beyond these
#  distances will not be considered when analyzing NTSC to NTSC
#  interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     Max Distance - KM
# ---------------    -----------------
#
```

```
(N-to-N)
     0                    300.0
     1                    100.0
     2                     35.0
     3                     35.0
     4                     35.0
     7                    100.0
     8                     35.0
    -1                    100.0
    -2                     35.0
    -3                     35.0
    -7                    100.0
    -8                     35.0
    14                    100.0
    15                    125.0

#
#  Define by channel relationships the maximum distance from an
#  undesired station to an analysis point.  Stations beyond these
#  distances will not be considered when analyzing NTSC to ATV
#  interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     Max Distance - KM
# ---------------    -----------------
#
(N-to-A)
     0                    300.0
     1                    100.0
    -1                    100.0

#
#  Define by channel relationships the maximum distance from an
#  undesired station to an analysis point.  Stations beyond these
#  distances will not be considered when analyzing ATV to NTSC
#  interference.
#
#  The blank line at the end is necessary to terminate the list.
#
#
# Channel Offset     Max Distance - KM
# ---------------    -----------------
#
(A-to-N)
     0                    300.0
     1                    100.0
     2                     35.0
     3                     35.0
     4                     35.0
     7                     35.0
     8                     35.0
    -1                    100.0
    -2                     35.0
    -3                     35.0
    -4                     35.0
    -7                     35.0
    -8                     35.0
    14                     35.0
    15                     35.0

#
```

```
#  Define by channel relationships the maximum distance from an
#  undesired station to an analysis point.  Stations beyond these
#  distances will not be considered when analyzing ATV to ATV
#  interference.
#
#  The blank line at the end is necessary to terminate the list.
#
# Channel Offset     Max Distance - KM
# ---------------    -----------------
#
(A-to-A)
     0                  300.0
     1                  100.0
    -1                  100.0

{END OF INPUT FILE}
Sideband masking assumed to improve first-adjacent A-to-A D/U ratios
                  D/U Ratios in dB
            ------------------------------------
  Channel  Intital     Including   with assumed
  Offset   Testing     Splatter    improvement
  ------   -------     ---------   ------------
   +1      -43.17       -21.15       -26.00
   -1      -41.98       -22.83       -28.00


Analysis of:  6N TN KNOXVILLE
                                   POPULATION   AREA (sq km)
   within Noise Limited Contour     1421492      42357.1
   not affected by terrain losses   1246834      35541.0
   lost to NTSC IX                    66112       2519.4
   lost to additional IX by ATV           0          0.0
   lost to all IX                     66112       2519.4
Analysis of: 18A TN KNOXVILLE
   HAAT  454.0 m, ATV ERP 1000.0 kW
                                   POPULATION   AREA (sq km)
   within Noise Limited Contour     1421492      42357.1
   not affected by terrain losses   1227718      34120.8
   lost to NTSC IX                    72282       3173.4
   lost to additional IX by ATV        1120         96.3
   lost to ATV IX only                14069        714.1
   lost to all IX                     73402       3269.7
   percent match ATV/NTSC              93.2         88.4
Analysis of: 15N TN KNOXVILLE
                                   POPULATION   AREA (sq km)
   within Noise Limited Contour     1013800      24703.5
   not affected by terrain losses    923885      19620.7
   lost to NTSC IX                     1764        100.4
   lost to additional IX by ATV        3514        156.6
   lost to all IX                      5278        257.0
Analysis of: 17A TN KNOXVILLE
   HAAT  513.0 m, ATV ERP   92.1 kW
                                   POPULATION   AREA (sq km)
   within Noise Limited Contour     1013800      24703.5
   not affected by terrain losses    935329      20395.5
   lost to NTSC IX                     5471        437.6
   lost to additional IX by ATV       50034       1164.3
   lost to ATV IX only                52339       1304.8
   lost to all IX                     55505       1601.9
   percent match ATV/NTSC              95.0         94.7
Analysis of: 17N NC LINVILLE
                                   POPULATION   AREA (sq km)
```

within Noise Limited Contour	1218087	23603.2
not affected by terrain losses	939959	18895.4
lost to NTSC IX	98316	1996.4
lost to additional IX by ATV	3580	216.9
lost to all IX	101896	2213.3

Analysis of: 54A NC LINVILLE
HAAT 546.0 m, ATV ERP 130.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1218087	23603.2
not affected by terrain losses	947612	19056.1
lost to NTSC IX	41469	506.1
lost to additional IX by ATV	27116	650.7
lost to ATV IX only	62758	976.1
lost to all IX	68585	1156.9
percent match ATV/NTSC	99.1	98.3

Analysis of: 17N TN NASHVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1351276	24706.4
not affected by terrain losses	1338297	23785.8
lost to NTSC IX	1580	68.0
lost to additional IX by ATV	7351	320.2
lost to all IX	8931	388.2

Analysis of: 15A TN NASHVILLE
HAAT 354.0 m, ATV ERP 121.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1351276	24706.4
not affected by terrain losses	1347821	24302.1
lost to NTSC IX	6516	452.3
lost to additional IX by ATV	3483	164.1
lost to ATV IX only	3908	200.1
lost to all IX	9999	616.4
percent match ATV/NTSC	99.7	99.2

Analysis of: 18N GA CHATSWORTH

	POPULATION	AREA (sq km)
within Noise Limited Contour	1725252	24884.1
not affected by terrain losses	1510220	19277.8
lost to NTSC IX	453749	2169.3
lost to additional IX by ATV	159665	2390.6
lost to all IX	613414	4559.9

Analysis of: 33A GA CHATSWORTH
HAAT 564.0 m, ATV ERP 331.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1725252	24884.1
not affected by terrain losses	1578077	20545.6
lost to NTSC IX	90781	1014.2
lost to additional IX by ATV	1991	60.4
lost to ATV IX only	7173	189.2
lost to all IX	92772	1074.6
percent match ATV/NTSC	99.1	99.3

Analysis of: 18N KY LEXINGTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	626580	13123.3
not affected by terrain losses	624727	12935.3
lost to NTSC IX	2523	152.0
lost to additional IX by ATV	2632	236.0
lost to all IX	5155	388.0

Analysis of: 22A KY LEXINGTON
HAAT 195.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	626580	13123.3
not affected by terrain losses	626272	13055.3
lost to NTSC IX	2582	192.0

lost to additional IX by ATV	14	4.0
lost to ATV IX only	58	8.0
lost to all IX	2596	196.0
percent match ATV/NTSC	99.9	99.5

Analysis of: 18N NC CHARLOTTE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1822550	23303.5
not affected by terrain losses	1812480	22919.9
lost to NTSC IX	203063	2829.5
lost to additional IX by ATV	88761	2941.4
lost to all IX	291824	5770.9

Analysis of: 27A NC CHARLOTTE
HAAT 366.0 m, ATV ERP 86.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1822550	23303.5
not affected by terrain losses	1818889	23143.7
lost to NTSC IX	38354	1426.7
lost to additional IX by ATV	12282	303.7
lost to ATV IX only	21125	651.4
lost to all IX	50636	1730.5
percent match ATV/NTSC	98.4	96.2

Analysis of: 19N AL HUNTSVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	935548	26493.4
not affected by terrain losses	882769	24486.4
lost to NTSC IX	25634	997.5
lost to additional IX by ATV	5862	193.1
lost to all IX	31496	1190.5

Analysis of: 59A AL HUNTSVILLE
HAAT 533.0 m, ATV ERP 89.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	935548	26493.4
not affected by terrain losses	889503	24663.4
lost to NTSC IX	10017	229.3
lost to additional IX by ATV	423	16.1
lost to ATV IX only	991	28.2
lost to all IX	10440	245.3
percent match ATV/NTSC	99.7	99.6

Analysis of: 19N TN KINGSPORT

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	711314	18697.4
lost to NTSC IX	4604	173.4
lost to additional IX by ATV	2339	129.0
lost to all IX	6943	302.4

Analysis of: 27A TN KINGSPORT
HAAT 707.0 m, ATV ERP 54.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	731431	19532.1
lost to NTSC IX	13528	524.2
lost to additional IX by ATV	25243	762.1
lost to ATV IX only	29511	1012.1
lost to all IX	38771	1286.3
percent match ATV/NTSC	96.9	96.3

Analysis of: 25N AL HUNTSVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	739275	18990.2
not affected by terrain losses	712140	17622.8
lost to NTSC IX	6310	265.4
lost to additional IX by ATV	445	48.3
lost to all IX	6755	313.7

Analysis of: 24A AL HUNTSVILLE
HAAT 352.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	739275	18990.2
not affected by terrain losses	724950	18350.8
lost to NTSC IX	1573	136.7
lost to additional IX by ATV	101	4.0
lost to ATV IX only	357	16.1
lost to all IX	1674	140.8
percent match ATV/NTSC	100.0	100.0

Analysis of: 25N KY ASHLAND

	POPULATION	AREA (sq km)
within Noise Limited Contour	389904	7490.0
not affected by terrain losses	374154	6869.8
lost to NTSC IX	2782	72.5
lost to additional IX by ATV	31653	334.2
lost to all IX	34435	406.7

Analysis of: 26A KY ASHLAND
HAAT 152.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	389904	7490.0
not affected by terrain losses	389018	7441.6
lost to NTSC IX	545	24.2
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	545	24.2
percent match ATV/NTSC	100.0	100.0

Analysis of: 19N TN KINGSPORT

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	711314	18697.4
lost to NTSC IX	4604	173.4
lost to additional IX by ATV	2339	129.0
lost to all IX	6943	302.4

Analysis of: 27A TN KINGSPORT
HAAT 707.0 m, ATV ERP 54.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	731431	19532.1
lost to NTSC IX	13528	524.2
lost to additional IX by ATV	25243	762.1
lost to ATV IX only	29511	1012.1
lost to all IX	38771	1286.3
percent match ATV/NTSC	96.9	96.3

Analysis of: 33N NC ASHEVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1811019	31661.8
not affected by terrain losses	1388898	21329.9
lost to NTSC IX	50973	831.7
lost to additional IX by ATV	18613	246.3
lost to all IX	69586	1078.0

Analysis of: 25A NC ASHEVILLE
HAAT 816.0 m, ATV ERP 101.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1811019	31661.8
not affected by terrain losses	1506452	23913.9
lost to NTSC IX	39108	908.4
lost to additional IX by ATV	261	48.4
lost to ATV IX only	1920	145.3
lost to all IX	39369	956.9
percent match ATV/NTSC	99.7	99.8

514530 calls to Longley-Rice; path distance increment 1.00 km

Channel 26 Analysis:

Note: Input file data deleted from this summary.

Analysis of: 6N TN KNOXVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1421492	42357.1
not affected by terrain losses	1246834	35541.0
lost to NTSC IX	66112	2519.4
lost to additional IX by ATV	0	0.0
lost to all IX	66112	2519.4

Analysis of: 26A TN KNOXVILLE
HAAT 454.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1421492	42357.1
not affected by terrain losses	1214578	33294.3
lost to NTSC IX	4056	196.6
lost to additional IX by ATV	17335	662.0
lost to ATV IX only	18413	738.2
lost to all IX	21391	858.5
percent match ATV/NTSC	96.1	92.2

Analysis of: 15N TN KNOXVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1013800	24703.5
not affected by terrain losses	923885	19620.7
lost to NTSC IX	1764	100.4
lost to additional IX by ATV	3342	148.6
lost to all IX	5106	248.9

Analysis of: 17A TN KNOXVILLE
HAAT 513.0 m, ATV ERP 92.1 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1013800	24703.5
not affected by terrain losses	935329	20395.5
lost to NTSC IX	5471	437.6
lost to additional IX by ATV	96	12.0
lost to ATV IX only	404	52.2
lost to all IX	5567	449.7
percent match ATV/NTSC	100.0	99.8

Analysis of: 17N NC LINVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1218087	23603.2
not affected by terrain losses	939959	18895.4
lost to NTSC IX	98316	1996.4
lost to additional IX by ATV	3580	216.9
lost to all IX	101896	2213.3

Analysis of: 54A NC LINVILLE
HAAT 546.0 m, ATV ERP 130.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1218087	23603.2
not affected by terrain losses	947612	19056.1
lost to NTSC IX	41469	506.1
lost to additional IX by ATV	27116	650.7
lost to ATV IX only	62758	976.1
lost to all IX	68585	1156.9
percent match ATV/NTSC	99.1	98.3

Analysis of: 17N TN NASHVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1351276	24706.4
not affected by terrain losses	1338297	23785.8
lost to NTSC IX	1580	68.0
lost to additional IX by ATV	7351	320.2

lost to all IX	8931	388.2

Analysis of: 15A TN NASHVILLE
HAAT 354.0 m, ATV ERP 121.8 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1351276	24706.4
not affected by terrain losses	1347821	24302.1
lost to NTSC IX	6516	452.3
lost to additional IX by ATV	3483	164.1
lost to ATV IX only	3908	200.1
lost to all IX	9999	616.4
percent match ATV/NTSC	99.7	99.2

Analysis of: 18N GA CHATSWORTH

	POPULATION	AREA (sq km)
within Noise Limited Contour	1725252	24884.1
not affected by terrain losses	1510220	19277.8
lost to NTSC IX	453749	2169.3
lost to additional IX by ATV	35228	297.8
lost to all IX	488977	2467.1

Analysis of: 33A GA CHATSWORTH
HAAT 564.0 m, ATV ERP 331.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1725252	24884.1
not affected by terrain losses	1578077	20545.6
lost to NTSC IX	90781	1014.2
lost to additional IX by ATV	1991	60.4
lost to ATV IX only	7173	189.2
lost to all IX	92772	1074.6
percent match ATV/NTSC	99.1	99.3

Analysis of: 18N KY LEXINGTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	626580	13123.3
not affected by terrain losses	624727	12935.3
lost to NTSC IX	2523	152.0
lost to additional IX by ATV	1169	116.0
lost to all IX	3692	268.0

Analysis of: 22A KY LEXINGTON
HAAT 195.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	626580	13123.3
not affected by terrain losses	626272	13055.3
lost to NTSC IX	2582	192.0
lost to additional IX by ATV	14	4.0
lost to ATV IX only	58	8.0
lost to all IX	2596	196.0
percent match ATV/NTSC	99.9	99.5

Analysis of: 18N NC CHARLOTTE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1822550	23303.5
not affected by terrain losses	1812480	22919.9
lost to NTSC IX	203063	2829.5
lost to additional IX by ATV	88761	2941.4
lost to all IX	291824	5770.9

Analysis of: 27A NC CHARLOTTE
HAAT 366.0 m, ATV ERP 86.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1822550	23303.5
not affected by terrain losses	1818889	23143.7
lost to NTSC IX	38354	1426.7
lost to additional IX by ATV	12282	303.7
lost to ATV IX only	21125	651.4
lost to all IX	50636	1730.5
percent match ATV/NTSC	98.4	96.2

Analysis of: 19N AL HUNTSVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	935548	26493.4
not affected by terrain losses	882769	24486.4
lost to NTSC IX	25634	997.5
lost to additional IX by ATV	5862	193.1
lost to all IX	31496	1190.5

Analysis of: 59A AL HUNTSVILLE
HAAT 533.0 m, ATV ERP 89.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	935548	26493.4
not affected by terrain losses	889503	24663.4
lost to NTSC IX	10017	229.3
lost to additional IX by ATV	423	16.1
lost to ATV IX only	991	28.2
lost to all IX	10440	245.3
percent match ATV/NTSC	99.7	99.6

Analysis of: 19N TN KINGSPORT

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	711314	18697.4
lost to NTSC IX	4604	173.4
lost to additional IX by ATV	2127	116.9
lost to all IX	6731	290.3

Analysis of: 27A TN KINGSPORT
HAAT 707.0 m, ATV ERP 54.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	731431	19532.1
lost to NTSC IX	13528	524.2
lost to additional IX by ATV	25386	766.1
lost to ATV IX only	29722	1020.2
lost to all IX	38914	1290.3
percent match ATV/NTSC	96.9	96.2

Analysis of: 25N AL HUNTSVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	739275	18990.2
not affected by terrain losses	712140	17622.8
lost to NTSC IX	6310	265.4
lost to additional IX by ATV	445	48.3
lost to all IX	6755	313.7

Analysis of: 24A AL HUNTSVILLE
HAAT 352.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	739275	18990.2
not affected by terrain losses	724950	18350.8
lost to NTSC IX	1573	136.7
lost to additional IX by ATV	101	4.0
lost to ATV IX only	357	16.1
lost to all IX	1674	140.8
percent match ATV/NTSC	100.0	100.0

Analysis of: 25N KY ASHLAND

	POPULATION	AREA (sq km)
within Noise Limited Contour	389904	7490.0
not affected by terrain losses	374154	6869.8
lost to NTSC IX	2782	72.5
lost to additional IX by ATV	31653	334.2
lost to all IX	34435	406.7

Analysis of: 26A KY ASHLAND
HAAT 152.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	389904	7490.0

not affected by terrain losses	389018	7441.6
lost to NTSC IX	545	24.2
lost to additional IX by ATV	0	4.0
lost to ATV IX only	0	4.0
lost to all IX	545	28.2
percent match ATV/NTSC	100.0	100.0

Analysis of: 19N TN KINGSPORT

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	711314	18697.4
lost to NTSC IX	4604	173.4
lost to additional IX by ATV	2127	116.9
lost to all IX	6731	290.3

Analysis of: 27A TN KINGSPORT

HAAT 707.0 m, ATV ERP 54.3 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	930250	26423.2
not affected by terrain losses	731431	19532.1
lost to NTSC IX	13528	524.2
lost to additional IX by ATV	25386	766.1
lost to ATV IX only	29722	1020.2
lost to all IX	38914	1290.3
percent match ATV/NTSC	96.9	96.2

Analysis of: 33N NC ASHEVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1811019	31661.8
not affected by terrain losses	1388898	21329.9
lost to NTSC IX	50973	831.7
lost to additional IX by ATV	18613	246.3
lost to all IX	69586	1078.0

Analysis of: 25A NC ASHEVILLE

HAAT 816.0 m, ATV ERP 101.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1811019	31661.8
not affected by terrain losses	1506452	23913.9
lost to NTSC IX	39108	908.4
lost to additional IX by ATV	17487	302.8
lost to ATV IX only	20844	456.2
lost to all IX	56595	1211.2
percent match ATV/NTSC	99.2	99.4

486274 calls to Longley-Rice; path distance increment 1.00 km

Channel 18 Analysis with 100Kw ERP:

(Input file deleted)

Analysis of: 6N TN KNOXVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1421492	42357.1
not affected by terrain losses	1246834	35541.0
lost to NTSC IX	66112	2519.4
lost to additional IX by ATV	0	0.0
lost to all IX	66112	2519.4

Analysis of: 18A TN KNOXVILLE
HAAT 454.0 m, ATV ERP 100.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1421492	42357.1
not affected by terrain losses	1141078	29828.1
lost to NTSC IX	63905	2439.2
lost to additional IX by ATV	2722	144.4
lost to ATV IX only	11482	549.6
lost to all IX	66627	2583.6
percent match ATV/NTSC	88.5	80.1

Analysis of: 15N TN KNOXVILLE

	POPULATION	AREA (sq km)
within Noise Limited Contour	1013800	24703.5
not affected by terrain losses	923885	19620.7
lost to NTSC IX	1764	100.4
lost to additional IX by ATV	3342	148.6
lost to all IX	5106	248.9

Analysis of: 17A TN KNOXVILLE
HAAT 513.0 m, ATV ERP 92.1 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1013800	24703.5
not affected by terrain losses	935329	20395.5
lost to NTSC IX	5471	437.6
lost to additional IX by ATV	8094	269.0
lost to ATV IX only	8437	317.2
lost to all IX	13565	706.6
percent match ATV/NTSC	99.1	98.6

Analysis of: 18N GA CHATSWORTH

	POPULATION	AREA (sq km)
within Noise Limited Contour	1725252	24884.1
not affected by terrain losses	1510220	19277.8
lost to NTSC IX	453749	2169.3
lost to additional IX by ATV	61162	1086.6
lost to all IX	514911	3255.9

Analysis of: 33A GA CHATSWORTH
HAAT 564.0 m, ATV ERP 331.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1725252	24884.1
not affected by terrain losses	1578077	20545.6
lost to NTSC IX	90781	1014.2
lost to additional IX by ATV	1991	60.4
lost to ATV IX only	7173	189.2
lost to all IX	92772	1074.6
percent match ATV/NTSC	99.1	99.3

126535 calls to Longley-Rice; path distance increment 1.00 km