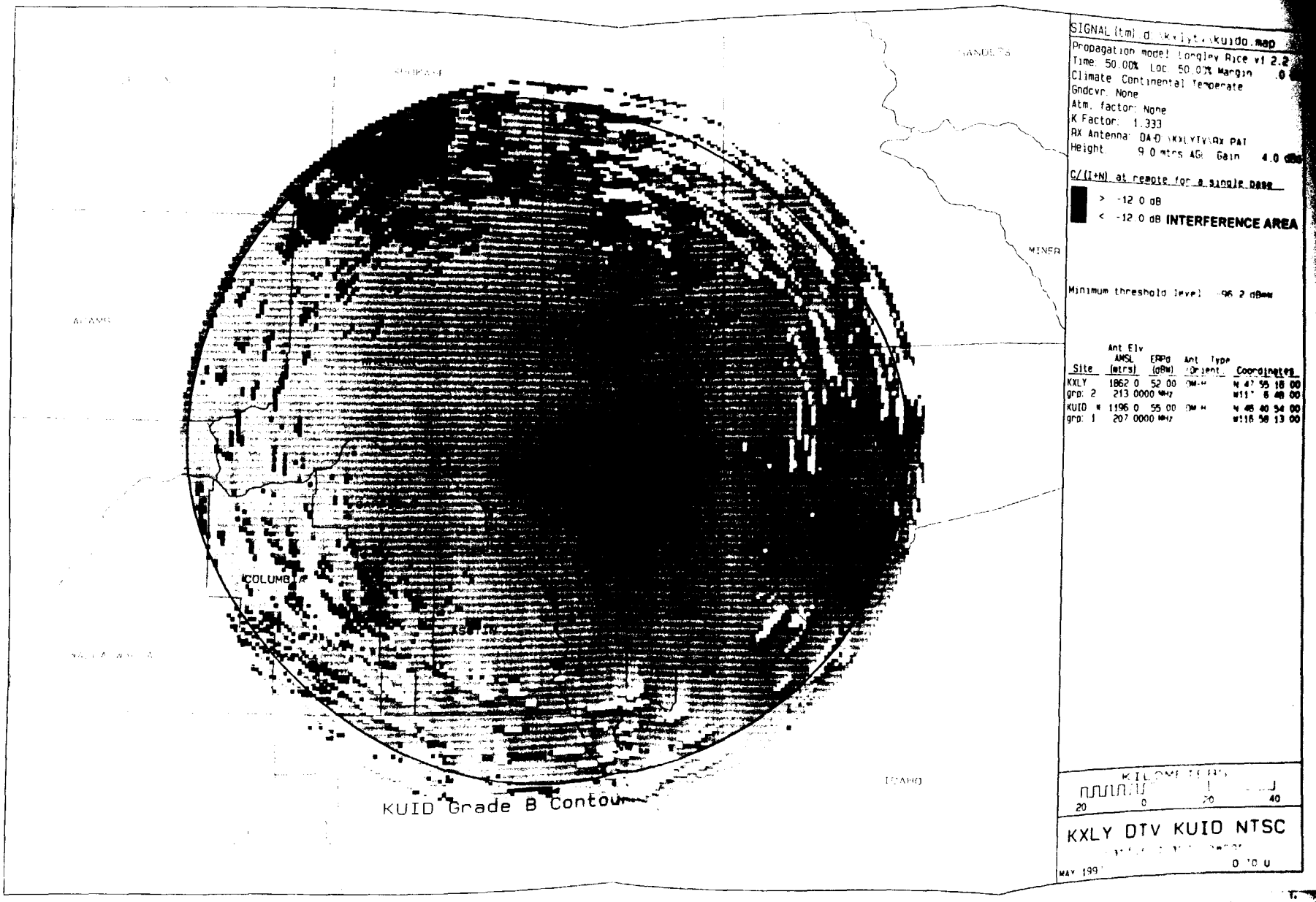
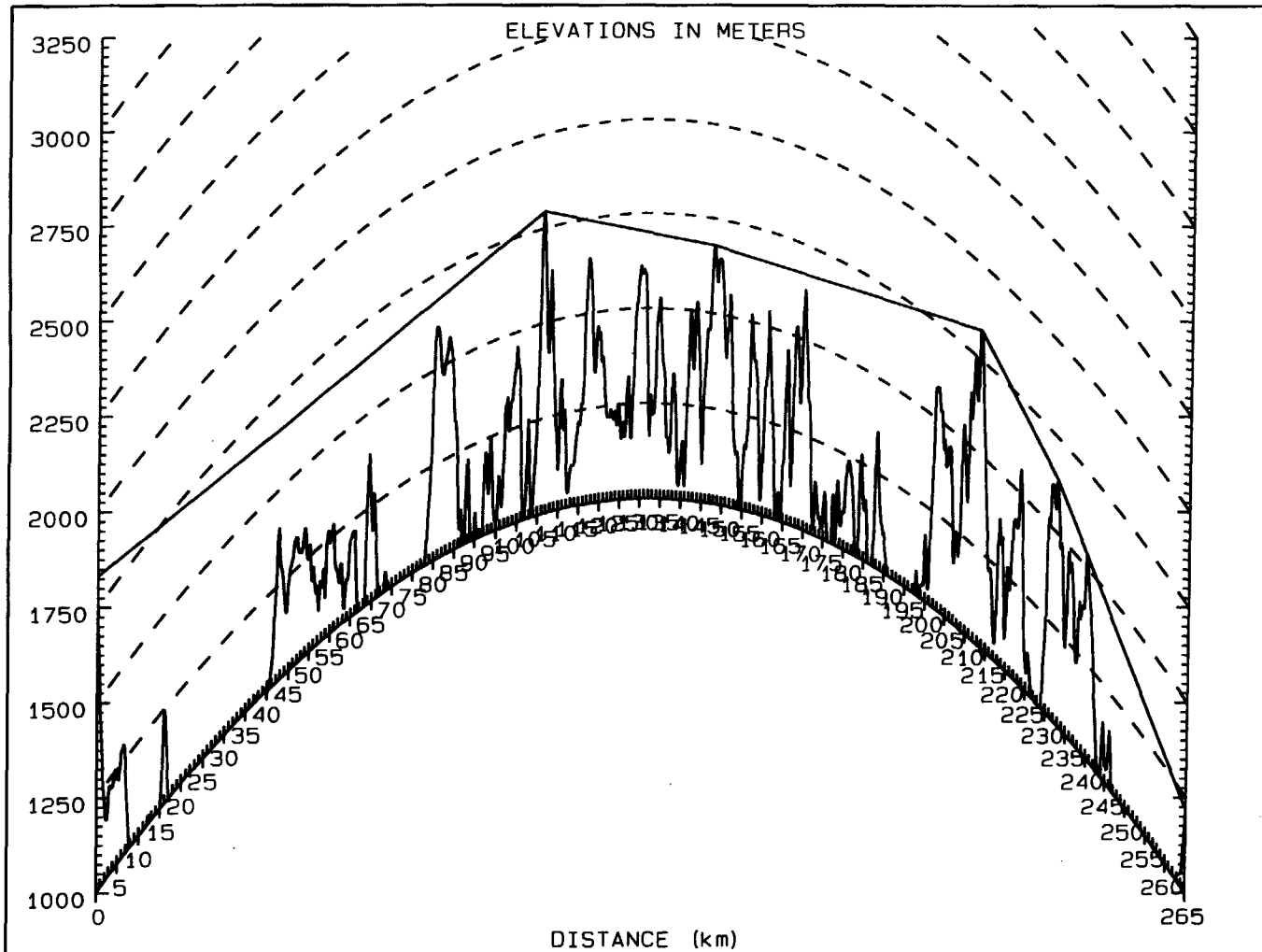

SIGNAL (tm) d:\kxlytv\kuido.map
Propagation model: Longley Rice v1 2.2
Time: 50.00% Loc: 50.00% Margin: .0
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factor: 1.333
Rx Antenna: DA-D \KXLYTV\Rx PAT
Height: 9.0 mtrs AGL Gain: 4.0
C/(I+N) at remote for a single base
> -12.0 dB
< -12.0 dB INTERFERENCE AREA
Minimum threshold level: -96.2 dBm
Site | Ant Elv AMSL (mtrs) | ERPd (dBW) | Ant Type Orient | Coordinates
KXLY | 1862.0 | 52.00 | OM-H | N 47 55 18.00
grp: 2 | 213.0000 MHz | | | W117 6 48.00
KUID * | 1196.0 | 55.00 | OM-H | N 46 40 54.00
grp: 1 | 207.0000 MHz | | | W116 58 13.00
KILOMETERS
20 0 20 40
KXLY DTV KUID NTSC
MAY 199
COLUMBIA
IDAHO
MINER
ADAMS
KUID Grade B Contour



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis

Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

Cross-link Interference Analysis

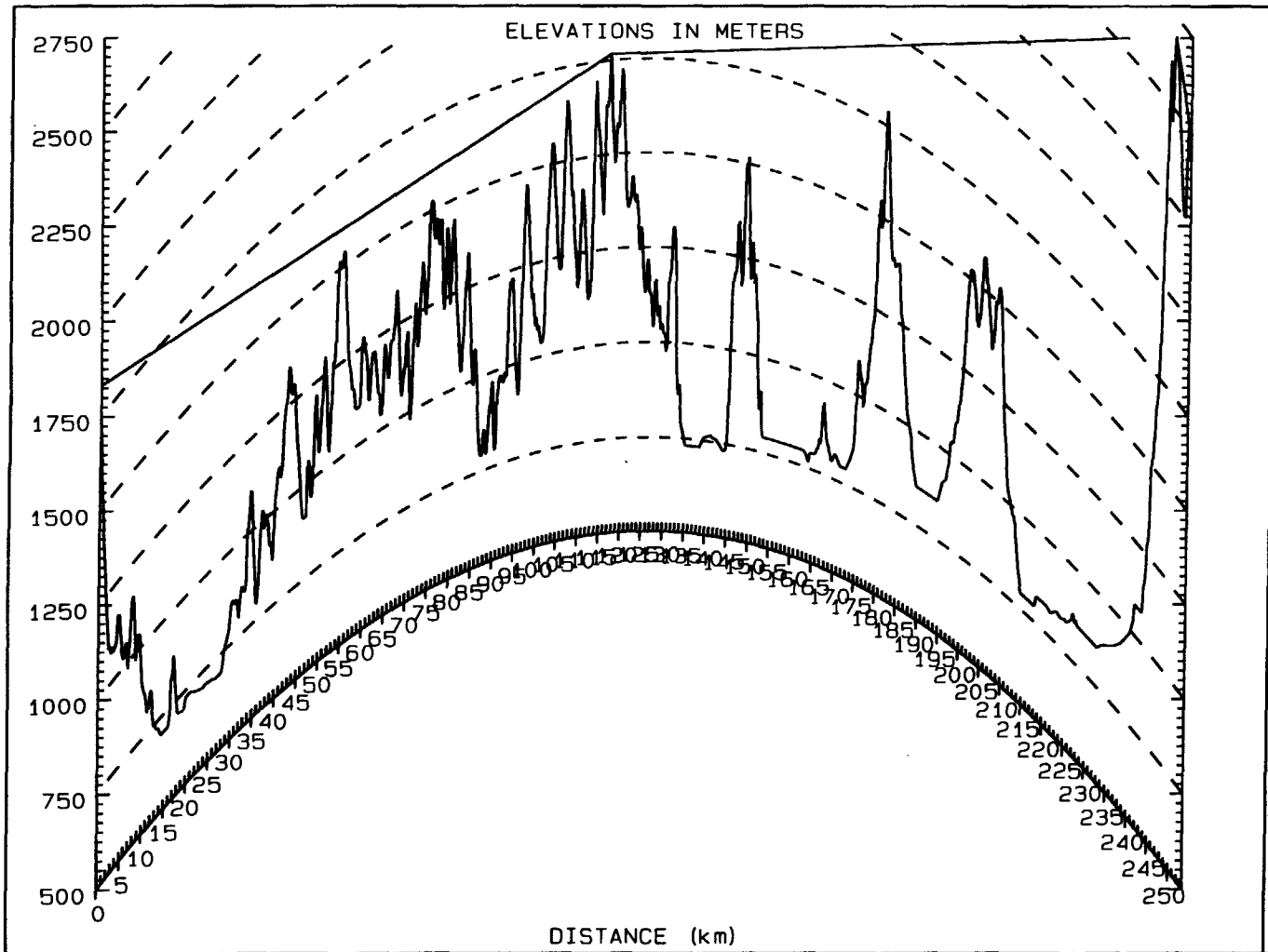
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY 13	Frequency: 213.0000 MHz	Name: Missoula
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 46 50 12.00 W 113 58 36.00
Site Elevation: 1831.0 m	Length: 265.12 km	Site Elevation: 1207.0 m
Antenna height: 1.0 m	Number of obstacles: 5	Antenna height: 9.1 m
Pointing azimuth: 115.899 degs	Excess path loss: 66.0 dB	Pointing azimuth: 298.208 degs
Transmitter power: .00 dBm	Path loss for stats.: 193.5 dB	Receiver threshold: -78.00 dBm
Line loss: .10 dB	Flat fade margin: -56.4 dB	Line loss: .10 dB
Other losses: .30 dB	Total fade margin: -56.4 dB	Other losses: .30 dB
Antenna gain: 30.00 dB	Annual fade outage: >999999 sec	Antenna gain: 30.00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: 29.60 dBm	Link availability: .00000 %	Rcvd signal level: -134.32 dBm

KXLY-DTV KECI-NTSC

Hatfield and Dawson

June 1997 Exhibit



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis
Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

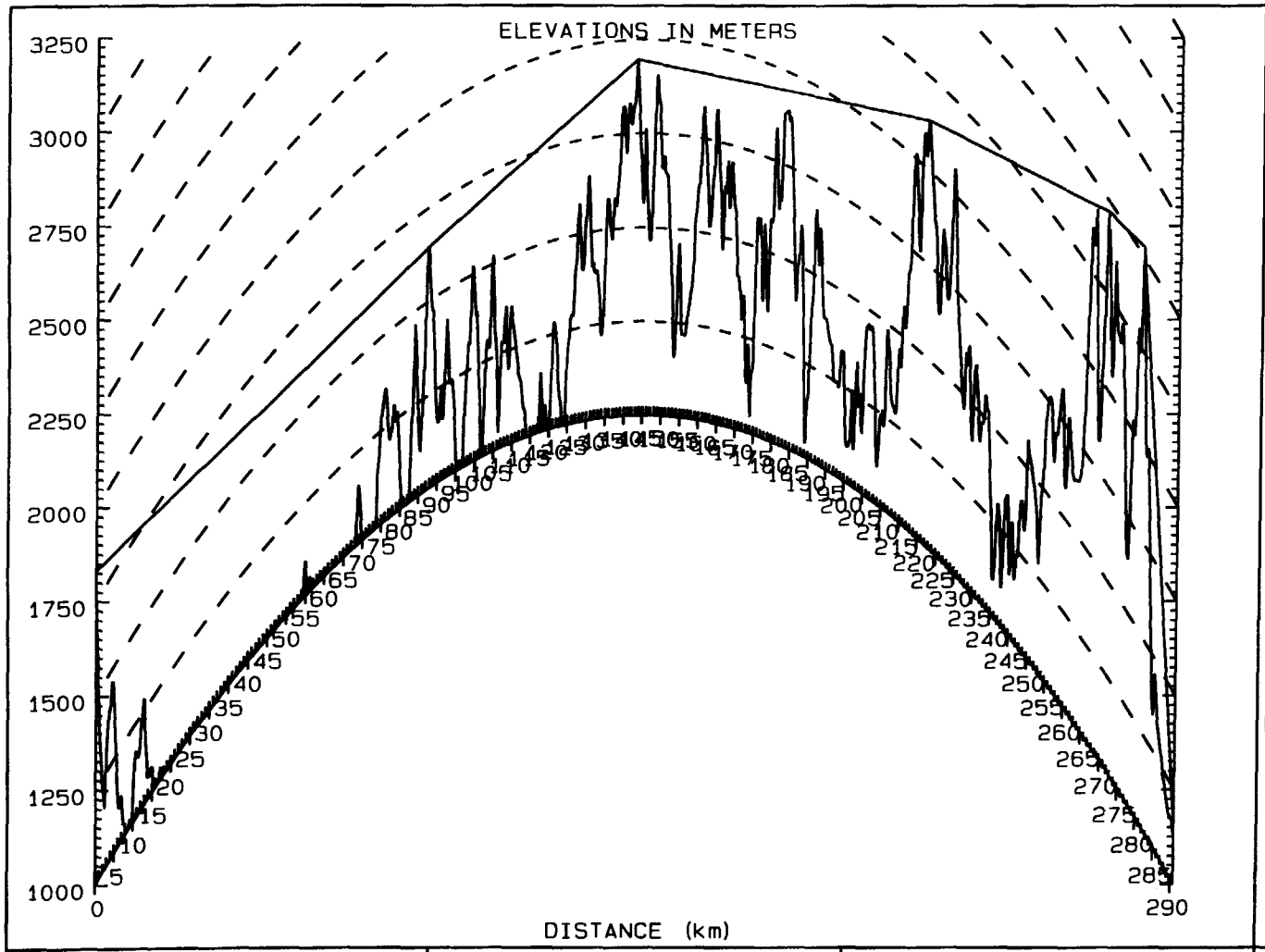
Cross-link Interference Analysis
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY 13	Frequency: 213.0000 MHz	Name: St. Ignatius
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 47 17 24.00 W 113 51 42.00
Site Elevation: 1831.0 m	Length: 253.62 km	Site Elevation: 2389.0 m
Antenna height: 1.0 m	Number of obstacles: 3	Antenna height: 9.1 m
Pointing azimuth: 104.868 degs	Excess path loss: 67.4 dB	Pointing azimuth: 287.270 degs
Transmitter power: .00 dBm	Path loss for stats.: 194.5 dB	Receiver threshold: -78.00 dBm
Line loss: .10 dB	Flat fade margin: -57.3 dB	Line loss: .10 dB
Other losses: .30 dB	Total fade margin: -57.3 dB	Other losses: .30 dB
Antenna gain: 30.00 dB	Annual fade outage: >999999 sec	Antenna gain: 30.00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: 29.60 dBm	Link availability: .00000 %	Rcvd signal level: -135.29 dBm

KXLY-DTV KECI-NTSC

Hatfield and Dawson

June 1997 Exhibit



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis

Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

Cross-link Interference Analysis

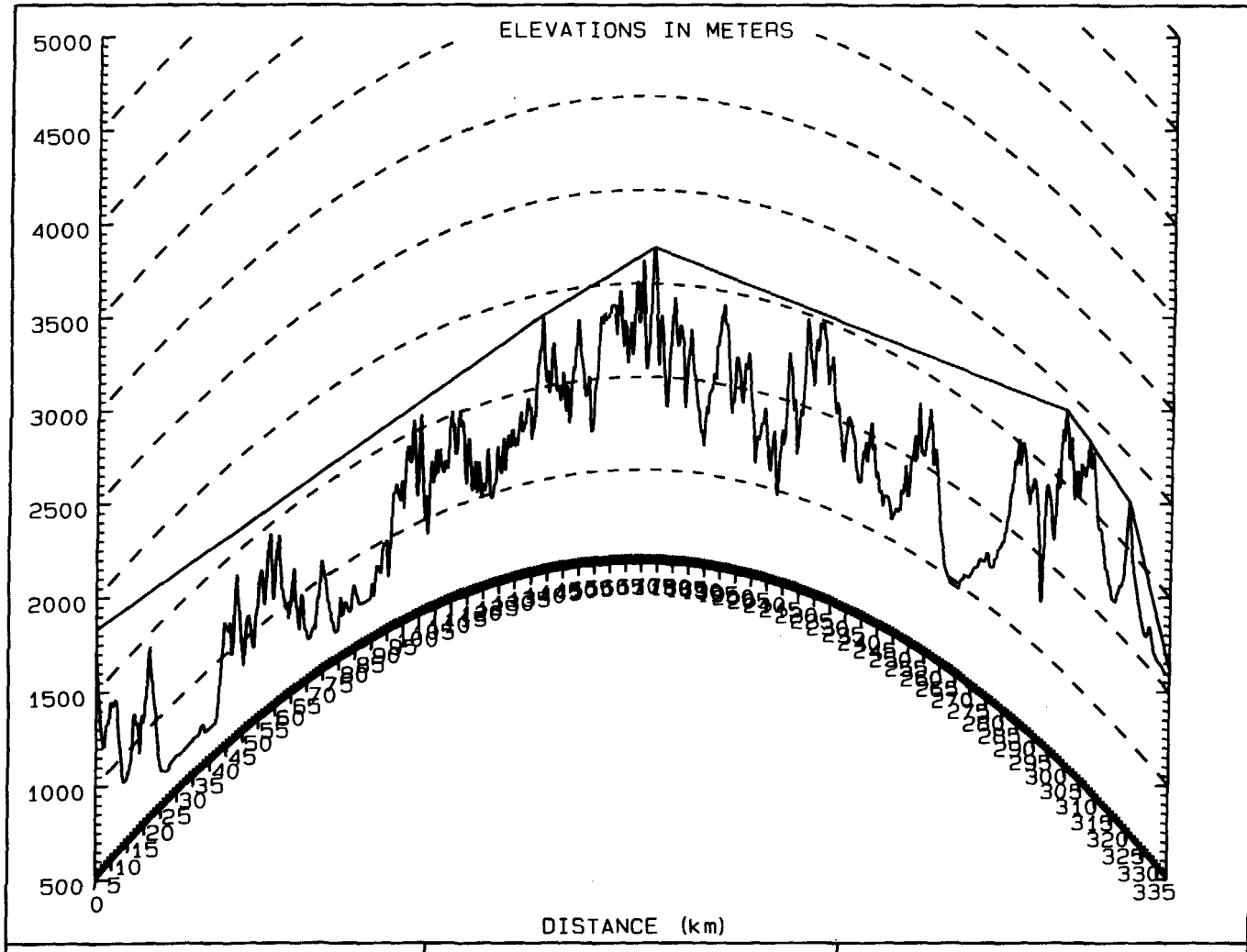
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY 13	Frequency: 213.0000 MHz	Name: Hamilton
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 46 13 48.00 W 114 10 48.00
Site Elevation: 1831.0 m	Length: 290.98 km	Site Elevation: 1118.0 m
Antenna height: 1.0 m	Number of obstacles: 5	Antenna height: 9.1 m
Pointing azimuth: 129.177 degs	Excess path loss: 84.3 dB	Pointing azimuth: 311.325 degs
Transmitter power: .00 dBm	Path loss for stats.: 212.6 dB	Receiver threshold: -78.00 dBm
Line loss: .10 dB	Flat fade margin: -75.4 dB	Line loss: .10 dB
Other losses: .30 dB	Total fade margin: -75.4 dB	Other losses: .30 dB
Antenna gain: 30.00 dB	Annual fade outage: >999999 sec	Antenna gain: 30.00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: 29.60 dBm	Link availability: .00000 %	Rcvd signal level: -153.37 dBm

KXLY-DTV KECI-NTSC

Hatfield and Dawson

June 1997 Exhibit



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis
Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

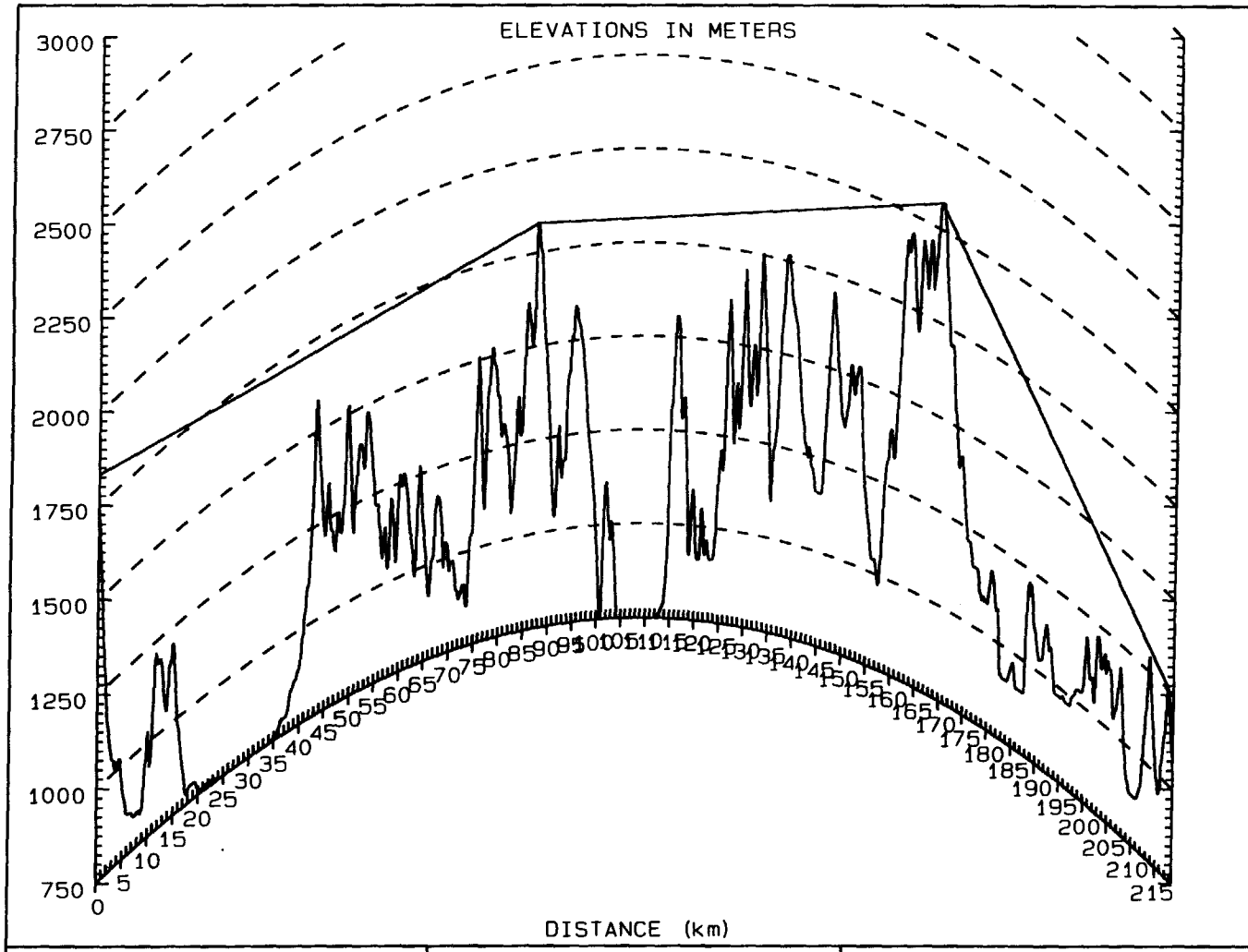
Cross-link Interference Analysis
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY 13	Frequency: 213.0000 MHz	Name: Philipsburg
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 46 19 38.00 W 113 18 1.00
Site Elevation: 1831.0 m	Length: 338.48 km	Site Elevation: 1590.0 m
Antenna height: 1.0 m	Number of obstacles: 5	Antenna height: 9.1 m
Pointing azimuth: 120.166 degs	Excess path loss: 83.3 dB	Pointing azimuth: 302.961 degs
Transmitter power: .00 dBm	Path loss for stats.: 212.9 dB	Receiver threshold: -78.00 dBm
Line loss: .10 dB	Flat fade margin: -75.8 dB	Line loss: .10 dB
Other losses: .30 dB	Total fade margin: -75.8 dB	Other losses: .30 dB
Antenna gain: 30.00 dB	Annual fade outage: >999999 sec	Antenna gain: 30.00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: 29.60 dBm	Link availability: .00000 %	Rcvd signal level: -153.73 dBm

KXLY-DTV KECI-NTSC

Hatfield and Dawson

June 1997 Exhibit



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis
Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

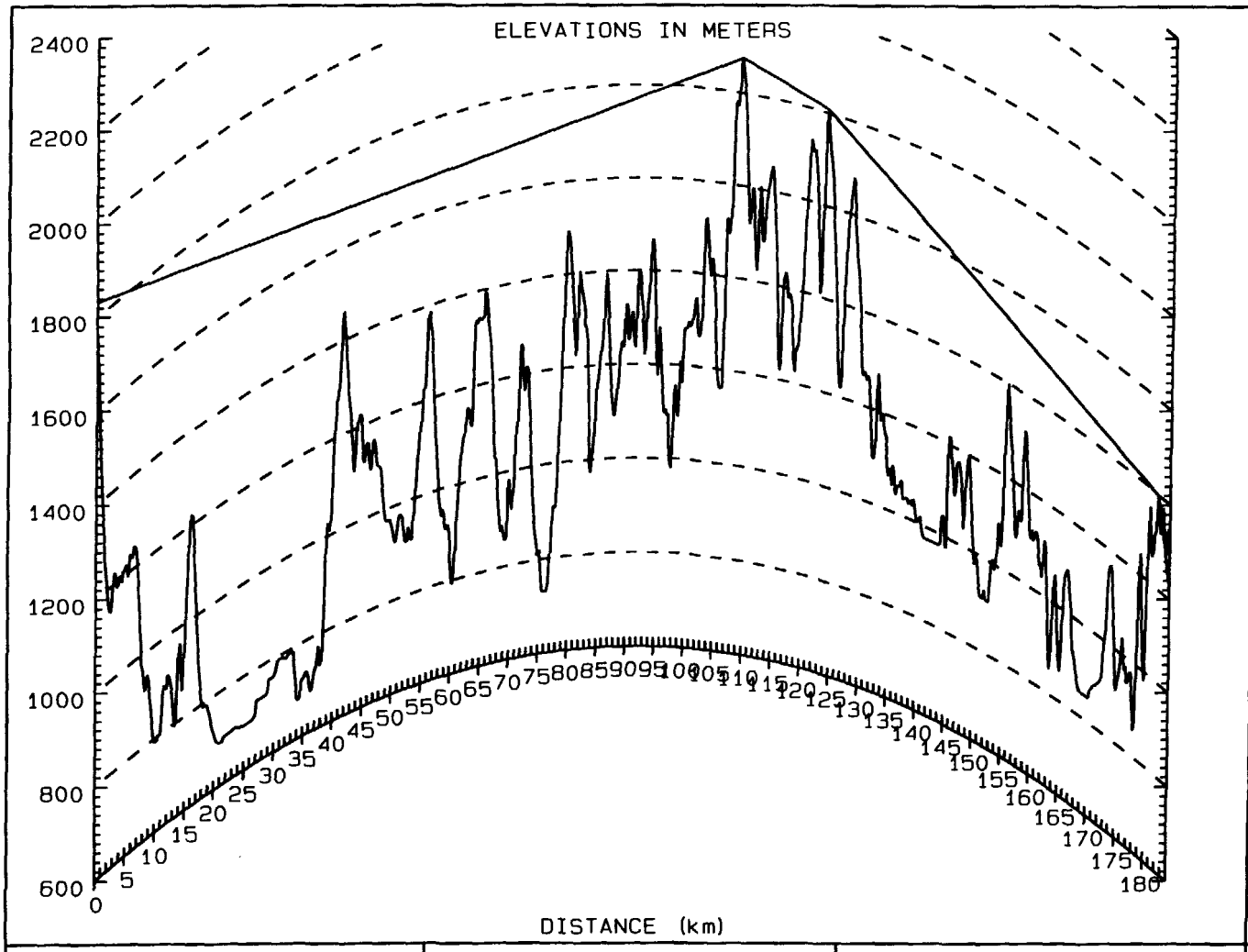
Cross-link Interference Analysis
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY 13	Frequency: 213.0000 MHz	Name: Polson
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 47 47 42.00 W 114 11 18.00
Site Elevation: 1831.0 m	Length: 218.62 km	Site Elevation: 1005.0 m
Antenna height: 1.0 m	Number of obstacles: 3	Antenna height: 9.1 m
Pointing azimuth: 92.607 degs	Excess path loss: 76.5 dB	Pointing azimuth: 274.777 degs
Transmitter power: .00 dBm	Path loss for stats.: 202.3 dB	Receiver threshold: -78.00 dBm
Line loss: .10 dB	Flat fade margin: -65.2 dB	Line loss: .10 dB
Other losses: .30 dB	Total fade margin: -65.2 dB	Other losses: .30 dB
Antenna gain: 30.00 dB	Annual fade outage: >999999 sec	Antenna gain: 30.00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: 29.60 dBm	Link availability: .00000 %	Rcvd signal level: -143.14 dBm

KXLY-DTV KECI-NTSC

Hatfield and Dawson

June 1997 Exhibit



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis
Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

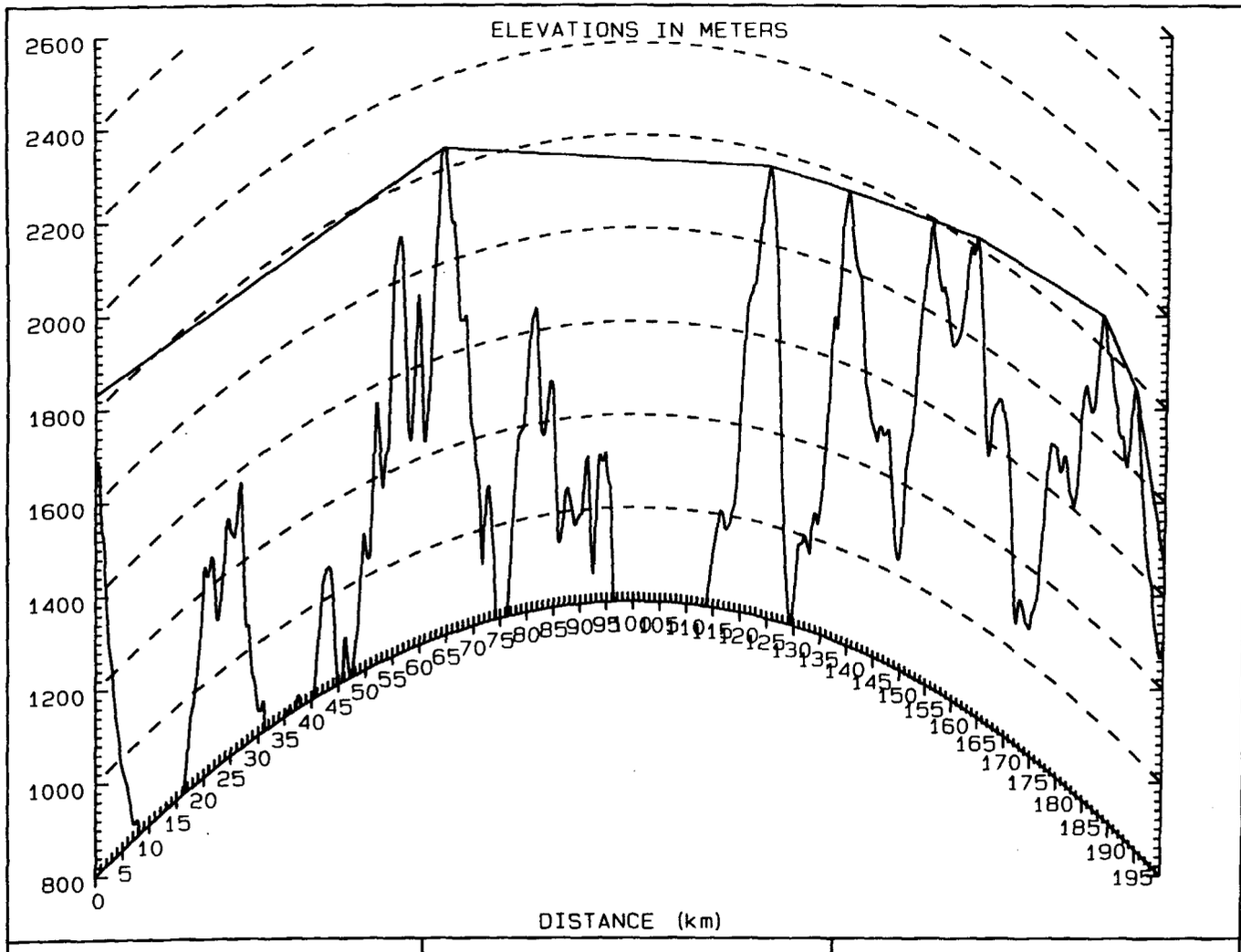
Cross-link Interference Analysis
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY 13	Frequency: 213.0000 MHz	Name: Superior
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 47 12 48.00 W 114 53 36.00
Site Elevation: 1831.0 m	Length: 184.19 km	Site Elevation: 1193.0 m
Antenna height: 1.0 m	Number of obstacles: 3	Antenna height: 9.1 m
Pointing azimuth: 114.487 degs	Excess path loss: 57.1 dB	Pointing azimuth: 296.125 degs
Transmitter power: .00 dBm	Path loss for stats.: 181.4 dB	Receiver threshold: -78.00 dBm
Line loss: .10 dB	Flat fade margin: -44.3 dB	Line loss: .10 dB
Other losses: .30 dB	Total fade margin: -44.3 dB	Other losses: .30 dB
Antenna gain: 30.00 dB	Annual fade outage: >999999 sec	Antenna gain: 30.00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: 29.60 dBm	Link availability: .00000 %	Rcvd signal level: -122.21 dBm

KXLY-DTV KECI-NTSC

Hatfield and Dawson

June 1997 Exhibit



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis

Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

Cross-link Interference Analysis

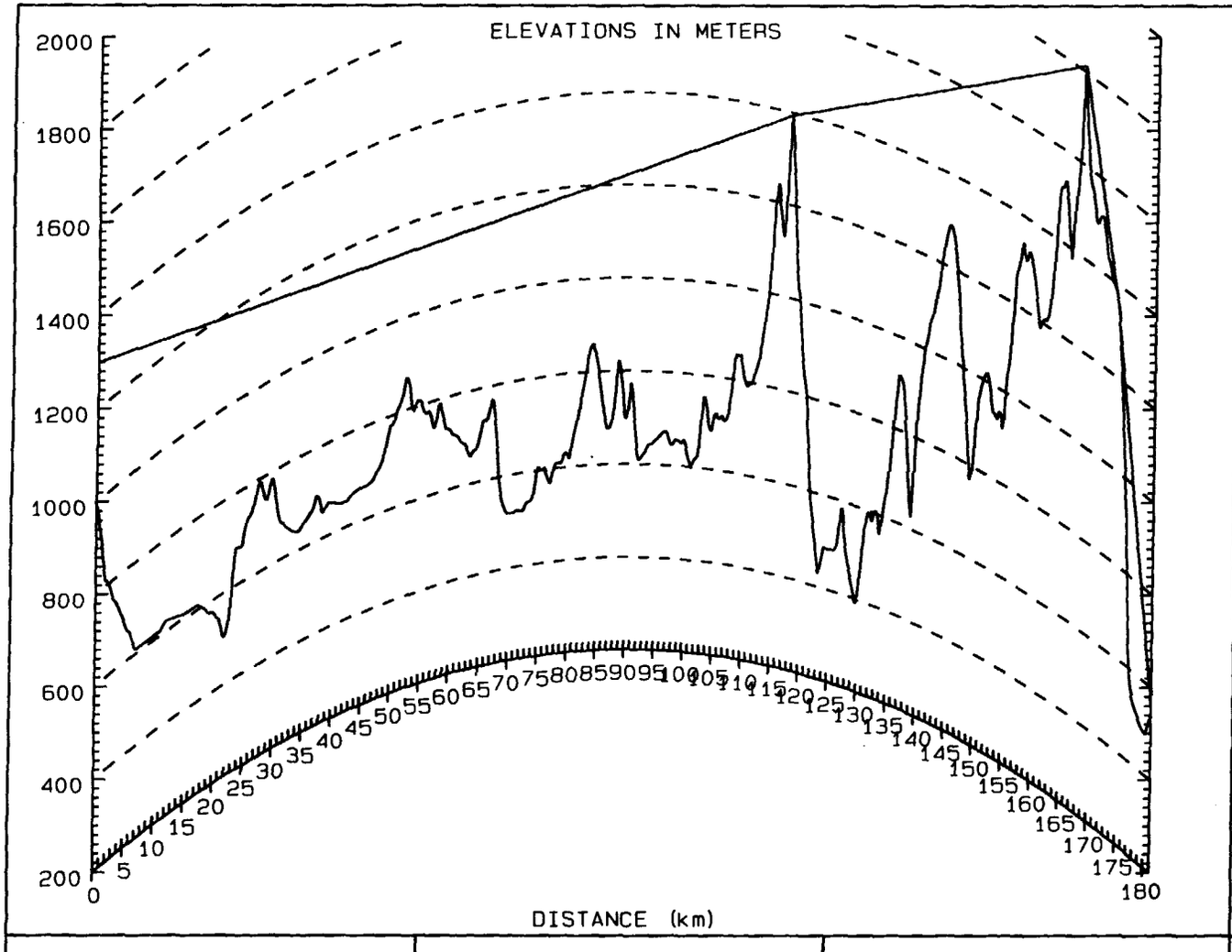
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KXLY TV	Frequency: 213.0000 MHz	Name: Cranbrook
N 47 55 18.00 W 117 6 48.00	Polarization: Horizontal	N 49 27 30.00 W 115 37 45.00
Site Elevation: 1832.0 m	Length: 202.59 km	Site Elevation: 1303.0 m
Antenna height: 1.0 m	Number of obstacles: 6	Antenna height: 9.0 m
Pointing azimuth: 31.965 degs	Excess path loss: 83.4 dB	Pointing azimuth: 213.080 degs
Transmitter power: .00 dBm	Path loss for stats.: 208.5 dB	Receiver threshold: .00 dBm
Line loss: .00 dB	Flat fade margin: -208.5 dB	Line loss: .00 dB
Other losses: .00 dB	Total fade margin: -208.5 dB	Other losses: .00 dB
Antenna gain: .00 dB	Annual fade outage: >999999 sec	Antenna gain: .00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: .00 dBm	Link availability: .00000 %	Rcvd signal level: -208.53 dBm

B.C. TV Allocations

Hatfield and Dawson

June 1997 blank



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis
Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

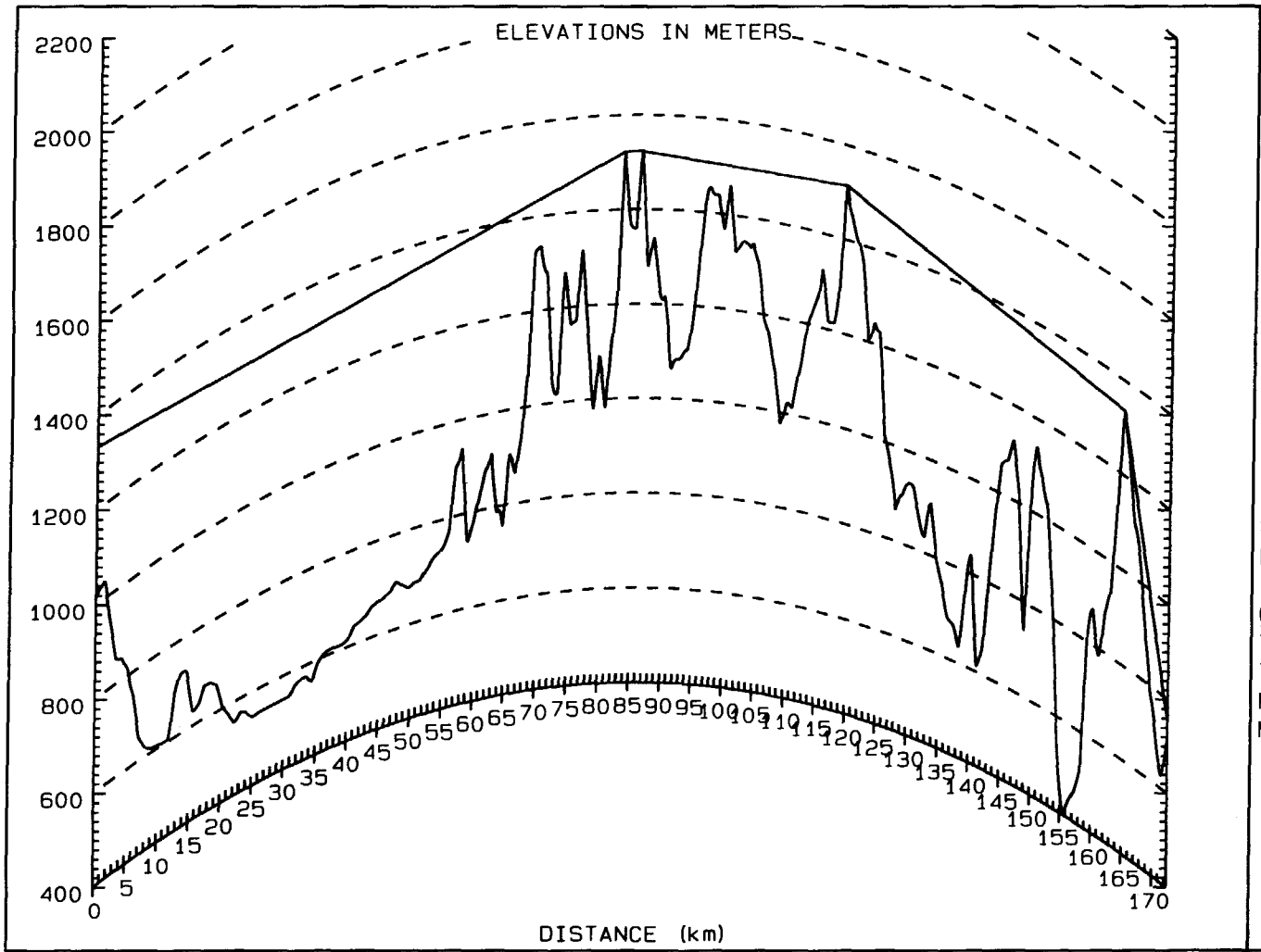
Cross-link Interference Analysis
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KSKN TV	Frequency: 605.0000 MHz	Name: Grand Forks
N 47 35 42.00 W 117 17 53.00	Polarization: Horizontal	N 49 2 .00 W 118 27 .00
Site Elevation: 1298.0 m	Length: 181.16 km	Site Elevation: 547.0 m
Antenna height: 1.0 m	Number of obstacles: 3	Antenna height: 9.0 m
Pointing azimuth: 332.388 degs	Excess path loss: 76.2 dB	Pointing azimuth: 151.527 degs
Transmitter power: .00 dBm	Path loss for stats.: 209.4 dB	Receiver threshold: .00 dBm
Line loss: .00 dB	Flat fade margin: -209.4 dB	Line loss: .00 dB
Other losses: .00 dB	Total fade margin: -209.4 dB	Other losses: .00 dB
Antenna gain: .00 dB	Annual fade outage: >999999 sec	Antenna gain: .00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: .00 dBm	Link availability: .00000 %	Rcvd signal level: -209.41 dBm

B.C. TV Allocations

Hatfield and Dawson

June 1997 blank



SIGNAL (tm)

Propagation model: Free space + RMD
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factors: 1.333

Reliability Analysis

Fade outage method: Vigants-Barnett
C parameter for Vigants-Barnett: 1.00
Adj. channel interference: -100.0 dBmW
External interference: -100.0 dBmW
Atmos. absorp. loss: .0 dB
Dispersive fade margin: 50.0 dB
Diversity type: Unprotected
Ant. spacing for diversity: 10.00 m
Rain outage method: Crane
Rain region: H

Cross-link Interference Analysis

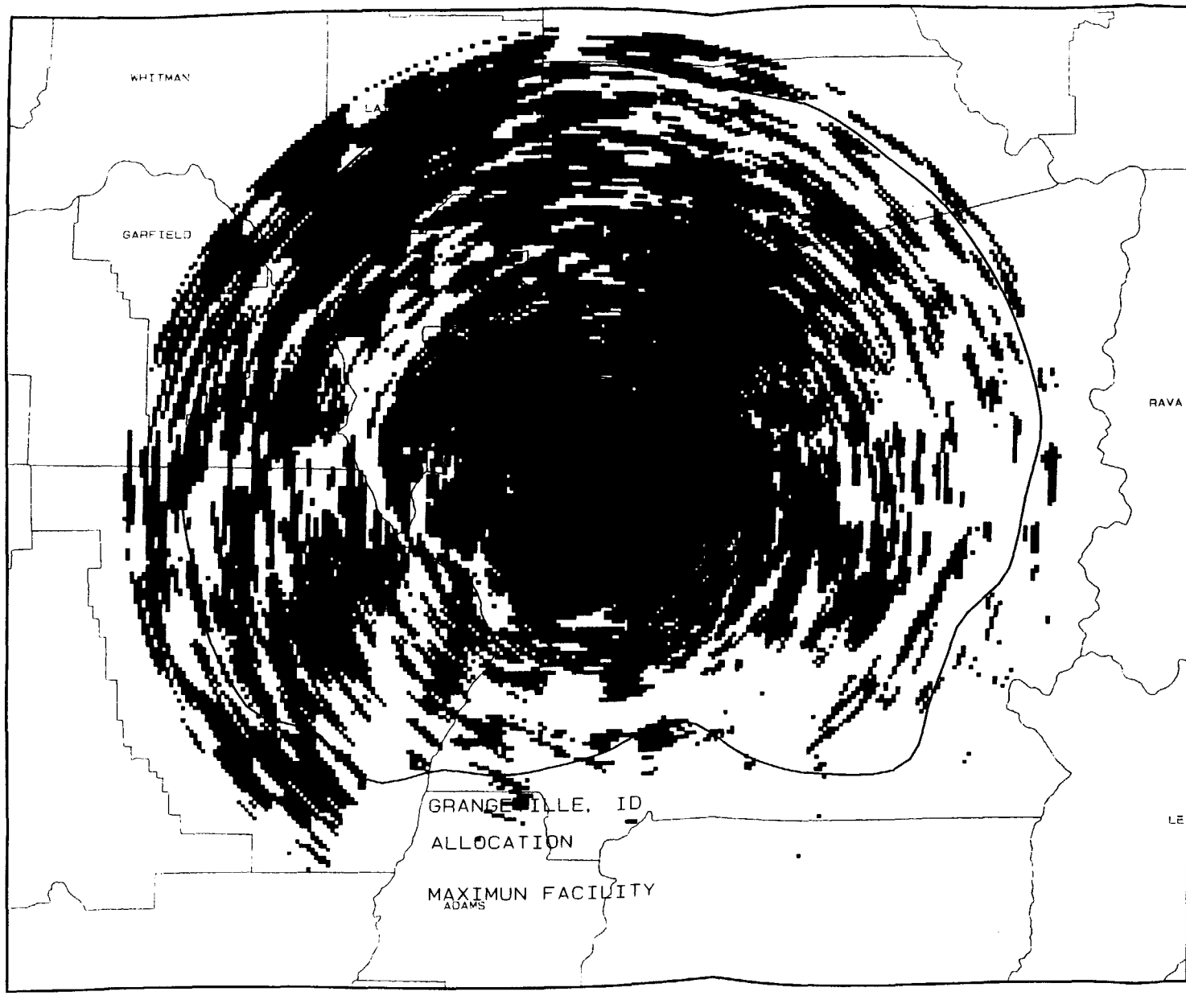
Total co-channel intrf: -300.0 dBmW
Total adj. channel intrf: -300.0 dBmW
Max. single intrf: -300.0 dBmW
Max. intrf. link ID:

Transmitter Site: a1	Path: a1-a2	Receiver Site: a2
Name: KAYU TV	Frequency: 569.0000 MHz	Name: Warfield
N 47 34 44.00 W 117 17 46.00	Polarization: Horizontal	N 49 6 .00 W 117 45 .00
Site Elevation: 1332.0 m	Length: 172.40 km	Site Elevation: 740.0 m
Antenna height: 1.0 m	Number of obstacles: 4	Antenna height: 9.0 m
Pointing azimuth: 348.950 degs	Excess path loss: 74.9 dB	Pointing azimuth: 168.611 degs
Transmitter power: .00 dBm	Path loss for stats.: 207.2 dB	Receiver threshold: .00 dBm
Line loss: .00 dB	Flat fade margin: -207.2 dB	Line loss: .00 dB
Other losses: .00 dB	Total fade margin: -207.2 dB	Other losses: .00 dB
Antenna gain: .00 dB	Annual fade outage: >999999 sec	Antenna gain: .00 dB
Ant. file: none	Annual rain outage: 0 sec	Ant. file: none
Transmitter ERP: .00 dBm	Link availability: .00000 %	Rcvd signal level: -207.19 dBm

B.C. TV Allocations

Hatfield and Dawson

June 1997 blank



SIGNAL (tm): D:\KXLYTV\KHQALLOC.MAP

Propagation model: Longley-Rice v1 2.2
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factor: 1.333
RX Antenna: DA-D:\KXLYTV\RX.PAT
Height: 9.0 mtrs AGL Gain: 4.0 dBd

C/(I+N) at remote for a single base

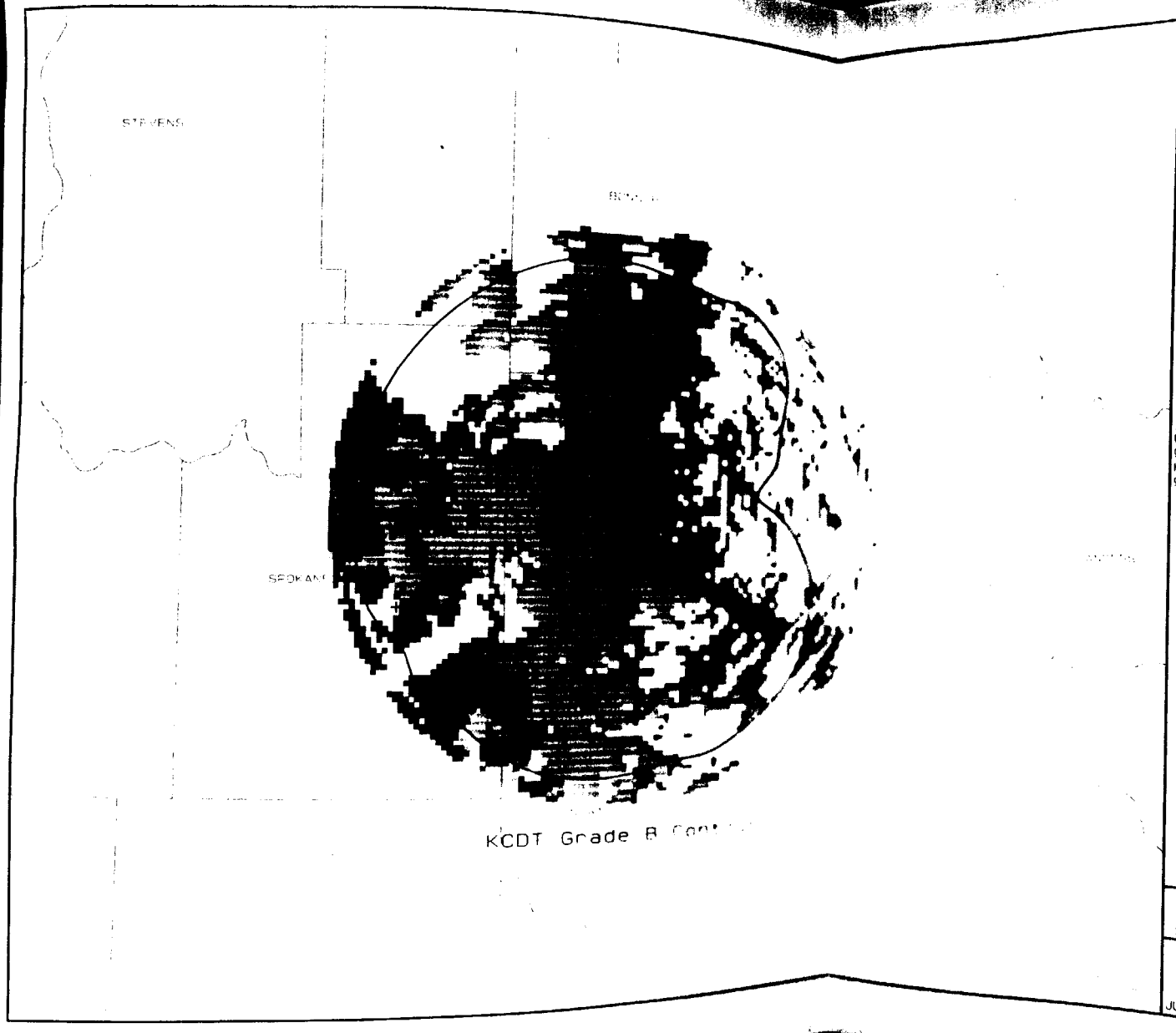
> 34.0 dB
< 34.0 dB **INTERFERENCE AREA**

Minimum threshold level: -96.2 dBmW

Site	Ant Elv AMSL (mtrs)	ERPd (dBW)	Ant. Type /Orient.	Coordinates
KHQ grp: 2	1373.0 479.0000 MHz	60.00	OM-H	N 47 34 52.00 W117 17 47.00
ALLOC * grp: 1	1592.0 479.0000 MHz	66.99	OM-H	N 45 55 34.00 W116 7 17.00

KILOMETERS
20 0 20 40

KHQ DTV ALLOC NTSC
Hatfield and Dawson
JUNE 1997 D TO U



SIGNAL (tm) :d:\kxlytv\kayu.map

Propagation model: Longley-Rice v1.2.2
Time: 50.00% Loc: 50.00% Margin: .0 dB
Climate: Continental Temperate
Gndcvr: None
Atm. factor: None
K Factor: 1.333
RX Antenna: DA-D:\KXLYTV\RX.PAT
Height: 9.0 mtrs AGL Gain: 4.0 dBd

C/(I+N) at remote for a single base

> -34.0 dB

< -34.0 dB **INTERFERENCE AREA**

Minimum threshold level: -96.2 dBmW

Site	Ant Elv AMSL (mtrs)	ERPd (dBW)	Ant. Type /Orient.	Coordinates
KAYU	1332.0	60.00	OM-H	N 47 34 44.00
grp: 2	557.0000 MHz			W117 17 46.00
KCDT *	1261.0	40.90	OM-H	N 47 43 54.00
grp: 1	545.0000 MHz			W116 43 47.00

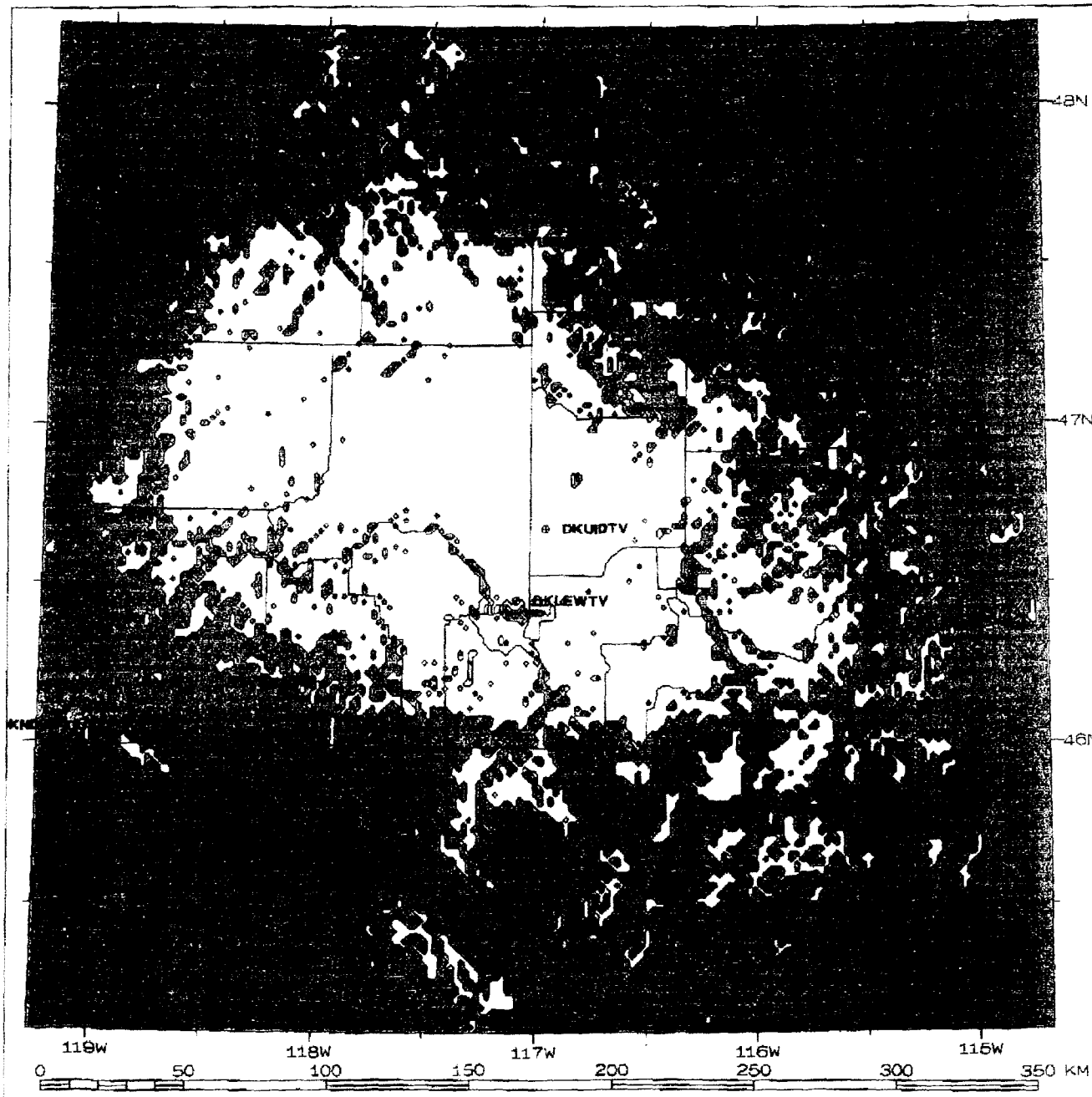
KILOMETERS
10 0 10 20 30 40

KAYU DTV KCDT NTSC

Hatfield and Dawson

JUNE 1997 D TO U

EXHIBIT C



TA Services
TA Services
DKUIDTV
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Signal to Interference ratio

No Interference
Area: 32330. sq km
Population: 192000.
Households: 72000.

HDTV Interference
Area: 540. sq km
Population: 31000.
Households: 13000.

NTSC Interference
Area: 110. sq km
Population: 0.
Households: 0.

Signal below minimum
Area: 89580. sq km
Population: 663000.
Households: 252000.