SATELLITE EARTH STATION
FREQUENCY COORDINATION
Run Options
05/2/2003

User name	kryan
Site name	KAUAI
Calculations	Y
Horizon elevation	N
Coord. Distance	N
Horizon gain	N
Great circle	Y
Frequencies	Y
Frequencies Low	N
Frequencies High	N
Profile Type	
Precipitation Scatter	N
Generate Owner/Plots	Y
Generate Transponder	N
Possible interference paths	23
Margins	1
Coordination run	

SATELLITE EARTH STATION
FREQUENCY COORDINATION DATA
05/2/2003

Company	SKYTOWER, INC	
Earth Station Name, State		KAUAI, HI
Latitude (DMS) (NAD83)		22 2 2.5 N
Longitude (DMS) (NAD83)		159 47 21.7 W
Ground Elevation AMSL (Ft/m)		3800.19 / 1158.24
Antenna Centerline AGL (Ft/m)		1200.06 / 365.76
Transmit Antenna Type:	FCC32	FCC Reference 32-25LOG(THETA)
3.0 GHz Gain (dBi) / Diameter (m)		13.0 / 0.3
3 dB / 15 dB Half Beamwidth		10.00 / 20.00
Operating Mode		TRANSMIT ONLY
Modulation		DIGITAL
Emission / Transmit Band (MHz)		1M00G7W / 2192.5
		60K0G7W/2195.5,2195.7
Max. Available RF Power	(dBW)/4 kHz)	-17.00
	(dBW)/MHz)	7.00
Max. EIRP	(dBW)/4 kHz)	-4.00
	(dBW)/MHz)	20.00
	(dBW)	7.40
Max permissible Interference Power		
3.0 GHz, 20% (dBW/4 kHz)		-154.0
3.0 GHz, 0.0025% (dBW/4 kHz)		-131.0

Low Earth Orbit Satellite

Azimuth Range (Min/Max) Degrees	0.0 / 360.0
Minimum Elevation Angle Degrees	10.0

Radio Climate	C
Rain Zone	4

Max Great Circle Coordination Distance (Mi/Km)

3.0 GHz	186.4 / 300.0

Precipitation Scatter Contour Radius (Mi/Km)

3.0 GHz	62.1 / 100.0

Note: Horizon is less than 0.2 degrees at all azimuths

Table of Earth Station Coordination Values
05/2/2003

Earth Station Name	KAUAI HI
Owner	SKYTOWER, INC
Latitude (DMS) (NAD83)	22 2 2.5 N
Longitude (DMS) (NAD83)	159 47 21.7 W
Ground Elevation (Ft/m)	3800.19 / 1158.24 AMSL
Antenna Centerline (Ft/m)	1200.06 / 365.76 AGL
Antenna Model	FCC Reference 32-25LOG(THETA)
Objectives: Transmit	-154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Azimuth (Deg)	Horizon Elevation Angle (Deg)	Antenna Disc. Angle (Deg)	3.0 GHz Antenna Gain (dBi)	3.0 GHz Coordination Distance (Km)
0	0.00	71.92	13.00	300.0
5	0.00	70.38	13.00	300.0
10	0.00	68.99	13.00	300.0
15	0.00	67.75	13.00	300.0
20	0.00	66.68	13.00	300.0
25	0.00	65.79	13.00	300.0
30	0.00	65.09	13.00	300.0
35	0.00	64.59	13.00	300.0
40	0.00	64.30	13.00	300.0
45	0.00	64.22	13.00	300.0
50	0.00	64.35	13.00	300.0
55	0.00	64.68	13.00	300.0
60	0.00	65.23	13.00	300.0
65	0.00	65.96	13.00	300.0
70	0.00	66.89	13.00	300.0
75	0.00	68.00	13.00	300.0
80	0.00	69.27	13.00	300.0
85	0.00	70.70	13.00	300.0
90	0.00	72.26	13.00	300.0
95	0.00	73.95	13.00	300.0
100	0.00	75.75	13.00	300.0
105	0.00	77.65	13.00	300.0
110	0.00	79.62	13.00	300.0
115	0.00	81.67	13.00	300.0

120	0.00	83.76	13.00	300.0
125	0.00	85.90	13.00	300.0
130	0.00	88.06	13.00	300.0
135	0.00	90.23	13.00	300.0
140	0.00	92.40	13.00	300.0
145	0.00	94.56	13.00	300.0
150	0.00	96.69	13.00	300.0
155	0.00	98.78	13.00	300.0
160	0.00	100.81	13.00	300.0
165	0.00	102.77	13.00	300.0
170	0.00	104.64	13.00	300.0
175	0.00	106.42	13.00	300.0
180	0.00	108.08	13.00	300.0

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05/2/2003

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Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Azimuth (Deg)	Horizon Elevation Angle (Deg)	Antenna Disc. Angle (Deg)	Antenna Gain (dBi)	3.0 GHz Coordination Distance (Km)
185	0.00	109.62	13.00	300.0
190	0.00	111.01	13.00	300.0
195	0.00	112.25	13.00	300.0
200	0.00	113.32	13.00	300.0
205	0.00	114.21	13.00	300.0
210	0.00	114.91	13.00	300.0
215	0.00	115.41	13.00	300.0
220	0.00	115.70	13.00	300.0
225	0.00	115.78	13.00	300.0
230	0.00	115.65	13.00	300.0
235	0.00	115.32	13.00	300.0
240	0.00	114.77	13.00	300.0
245	0.00	114.04	13.00	300.0
250	0.00	113.11	13.00	300.0
255	0.00	112.00	13.00	300.0
260	0.00	110.73	13.00	300.0
265	0.00	109.30	13.00	300.0
270	0.00	107.74	13.00	300.0
275	0.00	106.05	13.00	300.0
280	0.00	104.25	13.00	300.0
285	0.00	102.35	13.00	300.0
290	0.00	100.38	13.00	300.0
295	0.00	98.33	13.00	300.0
300	0.00	96.24	13.00	300.0
305	0.00	94.10	13.00	300.0

310	0.00	91.94	13.00	300.0
315	0.00	89.77	13.00	300.0
320	0.00	87.60	13.00	300.0
325	0.00	85.44	13.00	300.0
330	0.00	83.31	13.00	300.0
335	0.00	81.22	13.00	300.0
340	0.00	79.19	13.00	300.0
345	0.00	77.23	13.00	300.0
350	0.00	75.36	13.00	300.0
355	0.00	73.58	13.00	300.0

DESCRIPTION OF GREAT CIRCLE INTERFERENCE CASE HEADINGS

TERRESTRIAL PATH: SITE NAME AND STATE; THE FIRST SITE LISTED IS THE TERRESTRIAL STATION INVOLVED IN THE INTERFERENCE CONFLICT.

LAT: LATITUDE OF THE INVOLVED TERRESTRIAL STATION

LON: LONGITUDE OF THE INVOLVED TERRESTRIAL STATION

CALL: FCC CALL SIGN OF THE INVOLVED TERRESTRIAL STATION

OWNER: OWNER OF THE TERRESTRIAL PATH

GND: GROUND ELEVATION (AMSL) OF THE INVOLVED TERRESTRIAL STATION

ACL: ANTENNA CENTERLINE (AGL) OF THE INVOLVED TERRESTRIAL STATION

EDISCT: EARTH STATION DISCRIMINATION ANGLE , IN DEGREES, TOWARDS THE INVOLVED TERRESTRIAL STATION

TDISCT: INVOLVED TERRESTRIAL STATION DISCRIMINATION ANGLE, IN DEGREES, TOWARDS THE EARTH STATION

GES: GAIN OF THE EARTH STATION IN dBi AT THE CALCULATED EDISCT

GTS: GAIN OF THE INVOLVED TERRESTRIAL STATION IN DBI AT THE CALCULATED TDISCT

FSLOSS: FREE SPACE PROPAGATION LOSS IN dB DUE TO THE DISTANCE BETWEEN THE EARTH STATION AND THE INVOLVED TERRESTRIAL STATION AT THE INTERFERENCE FREQUENCY

TANT: INVOLVED TERRESTRIAL STATION ANTENNA CODE AND TYPE

DIST: DISTANCE BETWEEN THE EARTH STATION AND THE INVOLVED TERRESTRIAL STATION IN KILOMETERS

AZ: AZIMUTH IN DEGREES FROM TRUE NORTH FROM THE EARTH STATION TO THE INVOLVED TERRESTRIAL STATION

PR: CALCULATED POWER RECEIVED IN dBW.
PR = GES + GTS + (TPWR - 30) - FSLOSS - LL for RECEIVE
PR = GES + GTS + TX POWER - FSLOSS - LL - TX_LOSS for TRANSMIT

TX POWER: POWER OF EARTH STATION IN dBW/4kHz

MARGIN: MARGIN IN DB TO THE INTERFERENCE OBJECTIVE. THIS VALUE IS THE DIFFERENCE BETWEEN THE OBJECTIVE AND THE PR

TPWR: TRANSMIT POWER IN dBM OF THE TRANSMIT STATION IN THE INTERFERENCE CONFLICT

LL: LINE LOSS OF THE INVOLVED TERRESTRIAL STATION

TX_LOSS: TRANSMIT LINE LOSS

LOADING: TRAFFIC LOADING OF THE INVOLVED TERRESTRIAL STATION

FREQ POL: FREQUENCIES AND POLARIZATIONS OF THE INVOLVED TERRESTRIAL STATION

Great Circle Interference Conflicts
05/2/2003

Earth Station Name KAUAI HI
Owner SKYTOWER, INC
Latitude (DMS) (NAD83) 22 2 2.5 N
Longitude (DMS) (NAD83)159 47 21.7 W
Ground Elevation (Ft/m) 3800.19 / 1158.24 AMSL
Antenna Centerline (Ft/m) 1200.06 / 365.76 AGL
Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path	Gnd ACL	EDISCT TDISCT	GES GTS	FSLoss TANT	Dist Az	PR Margin	TPWR LL	Plan
1 DIAMOND HEADHIPUU MANAWAH HI 21 15 59 157 48 1 WBD205 S00403: HAWAII STATE 2184.8000V	128.02 3.05	80.5 0.1	13.0 32.2 96	146.1 A22290 CH	222.7-119.9 112.1	34.1 MSG RCN:	30.0 2.0 88080556	HM
Latitude Longitude Owner Freq/Pol						Loading		
Status: L OH LOSS 20% / 0.0025%: Did not profile			Equipment: 2I2Y02			Emission: 1M60F9W		
2 ROUND TOP HIMT MAUNA KA HI 21 18 53 157 49 15 WNEM417 S00403: HAWAII STATE 2136.4000H	327.66 17.68	80.0 2.5	13.0 27.8 96	146.0 A21950 CH	218.7-124.2 111.0	29.8 MSG RCN:	30.0 2.0	LM
Status: L OH LOSS 20% / 0.0025%: Did not profile			Equipment: 2I2Y02			Emission: 1M60F9W		
3 KUKUIOLONO HIWAIMEA HI	297.18	81.9	13.0	128.9	30.5-124.2		30.0	LM

21 54 54 159 31 23 WAZ481 18.29 8.9 10.6 M20210 115.5 29.8 2.0
S00403: HAWAII STATE 24 CH MSG RCN:
2144.4000V
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

4 LIHUE SOB HIMT KILOHANA HI 61.57 75.2 13.0 132.1 44.1-126.3 30.0LM
21 58 30 159 22 2 WNEM419 10.67 344.9 10.8 A21950 98.4 27.7 1.0
S00403: HAWAII STATE 96 CH MSG RCN: 89111014
2138.0000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

5 AUKELE ST HIGROVE FARM HI 42.67 75.5 13.0 132.3 45.2-133.5 30.0LN
21 58 5 159 21 26 WNER946 8.53 26.2 4.8 A21950 99.2 20.5 2.0
KAUPAG: RAYCOMM INC 48 CH MSG RCN: 91072632
2135.6000H
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

Great Circle Interference Conflicts
05/2/2003

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Latitude (DMS) (NAD83) 22 2 2.5 N
Longitude (DMS) (NAD83)159 47 21.7 W
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Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path Gnd EDISCT GES FSLoss Dist PR TPWR Plan
Latitude Longitude ACL TDISCT GTS TANT Az Margin LL
Owner Loading
Freq/Pol

6 KAPAA FIRE HIKAHILI SITE HI 3.05 71.2 13.0 132.9 48.3-135.1 30.0LN
22 3 37 159 19 19 WGY755 29.57 24.8 4.8 A21940 86.5 18.9 3.0
S00403: HAWAII STATE 24 CH MSG RCN:
2134.0000V
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

7 MUANA LOA HIAWANUI HI 408.43 79.6 13.0 148.3 287.3-135.2 30.0LM
21 7 41 157 11 22 KUT60 19.81 4.4 18.1 A24235 110.0 18.8 1.0
S00020: AERONAUTICAL RADIO INC - ARINC 48 CH MSG RCN:
2139.6000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

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 8 MT KAHILI   HIKUKUIOLONO  HI   877.82  76.1  13.0 129.9   34.4-136.7 30.0HN
   21 58 29 159 27 45 WAZ482       18.29  57.6  -0.8 M20210 100.9 17.3   2.0
  S00403:  HAWAII STATE                          24  CH   MSG RCN:
 2192.0000H
  Status:  L                      Equipment: 2I2Y03   Emission: 800KF9W
  OH LOSS  20% / 0.0025%:  Did not profile


 9 WAIMEA      HIKUKUIOLONO  HI    10.67  86.6  13.0 122.0   13.9-137.8 30.0HM
   21 57 33 159 40 53 WAZ480       15.24 200.0  -9.8 M20210 126.5 16.2   2.0
  S00403:  HAWAII STATE                          24  CH   MSG RCN:
 2194.4000V
  Status:  L                      Equipment: 2I2Y03   Emission: 800KF9W
  OH LOSS  20% / 0.0025%:  Did not profile


10 KUKUIOLONO  HIMT KAHILI   HI   297.18  81.9  13.0 128.9   30.5-138.1 30.0LN
   21 54 54 159 31 23 WAZ481       18.29 252.2  -3.3 M20210 115.5 15.9   2.0
  S00403:  HAWAII STATE                          24  CH   MSG RCN:
 2142.0000H
  Status:  L                      Equipment: 2I2Y03   Emission: 800KF9W
  OH LOSS  20% / 0.0025%:  Did not profile
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Great Circle Interference Conflicts
05/2/2003

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Earth Station Name     KAUAI HI
Owner                  SKYTOWER, INC
Latitude  (DMS) (NAD83) 22  2  2.5 N
Longitude (DMS) (NAD83)159 47 21.7 W
Ground Elevation (Ft/m)    3800.19 /  1158.24 AMSL
Antenna Centerline (Ft/m)  1200.06 /   365.76 AGL
Antenna Model            FCC Reference 32-25LOG(THETA)
Objectives: Transmit    -154.0 (dBW /4 kHz)  TX Power   -17.0 (dBW/4 kHz)
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      Terrestrial Path            Gnd EDISCT  GES FSLoss  Dist   PR  TPWR Plan
   Latitude        Longitude      ACL TDISCT  GTS   TANT    Az Margin LL
   Owner                                          Loading
   Freq/Pol

11 ANAHOLA     HIMT KAHILI   HI    85.34  68.5  13.0 133.2   50.5-139.5 29.0LN
   22  8 15 159 18 46 WAZ483       30.48  36.3  -1.3 M20251  76.8 14.5   1.0
  S00403:  HAWAII STATE                          48  CH   MSG RCN:  99060712
 2145.2000H
  Status:  L                      Equipment: 2I2Y03   Emission: 800KF9W
  OH LOSS  20% / 0.0025%:  Did not profile


12 HONOLULU    HIAWANUI      HI     1.83  80.2  13.0 145.6  210.5-140.2 30.0LM
   21 19 57 157 53 56 KUT63         8.23   8.2  10.5 A23820 111.3 13.8   1.0
  S00020:  AERONAUTICAL RADIO INC - ARINC        48  CH   MSG RCN:
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2131.6000V
Status: X Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

13 ANAHOLA HIKILAUEA HI 85.34 68.5 13.0 133.2 50.5-140.5 29.0LM
22 8 15 159 18 46 WAZ483 13.72 298.8 -1.3 M20251 76.8 13.5 2.0
S00403: HAWAII STATE 48 CH MSG RCN: 99030808
2139.6000V
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

14 KAHILI SITE HIKAPAA FIRE HI 829.06 76.7 13.0 129.0 31.0-140.8 31.0HN
21 58 24 159 29 45 WGY756 6.10 220.7 -5.8 A21940 102.4 13.2 2.0
S00403: HAWAII STATE 24 CH MSG RCN:
2184.0000V
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

15 MT KAHILI HIANAHOLA HI 877.82 76.1 13.0 129.9 34.4-141.2 29.0HN
21 58 29 159 27 45 WAZ482 18.29 240.4 -6.3 M20251 100.9 12.8 1.0
S00403: HAWAII STATE 48 CH MSG RCN: 99060712
2195.2000H
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

Great Circle Interference Conflicts
05/2/2003

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Longitude (DMS) (NAD83)159 47 21.7 W
Ground Elevation (Ft/m) 3800.19 / 1158.24 AMSL
Antenna Centerline (Ft/m) 1200.06 / 365.76 AGL
Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path Gnd EDISCT GES FSLoss Dist PR TPWR Plan
Latitude Longitude ACL TDISCT GTS TANT Az Margin LL
Owner Loading
Freq/Pol

16 KILAUEA HIANAHOLA HI 167.03 65.6 13.0 132.4 45.8-142.1 29.0HM
22 13 22 159 23 42 WAZ484 10.67 104.7 -3.7 M20251 62.7 11.9 2.0
S00403: HAWAII STATE 48 CH MSG RCN: 99030808
2189.6000V
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

17 DIAMOND HEADHIMT KAALA HI 128.02 80.5 13.0 146.1 222.7-142.2 30.0HM
21 15 59 157 48 1 WBD205 3.05 345.7 9.9 A22290 112.1 11.8 2.0
S00403: HAWAII STATE 96 CH MSG RCN: 88080556
2197.6000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

18 MT KILOHANA HILIHUE SOB HI 225.55 74.6 13.0 131.2 39.7-144.4 23.0HM
21 59 29 159 24 26 WNEM420 18.29 163.2 -6.2 A21950 96.7 9.6 3.0
S00403: HAWAII STATE 96 CH MSG RCN: 89111014
2188.0000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

19 GROVE FARM HIAUKELE ST HI 423.06 78.4 13.0 130.2 35.7-148.0 30.0HN
21 56 21 159 27 33 WNER945 6.10 214.1 -9.8 M20210 107.0 6.0 4.0
KAUPAG: RAYCOMM INC 48 CH MSG RCN: 91072632
2185.6000H
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

20 WAAHILA PR HIWARD AVENUE HI 398.10 80.0 13.0 146.1 221.4-148.8 -9.0HM
21 18 37 157 47 42 WEF541P 6.10 31.9 2.3 M20300 110.8 5.2 1.0
S00404: HAWAIIAN ELECTRIC CO INC 96 CH MSG RCN: 96070505
2192.8000H
Status: O Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

Great Circle Interference Conflicts
05/2/2003

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Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path Gnd EDISCT GES FSLoss Dist PR TPWR Plan
Latitude Longitude ACL TDISCT GTS TANT Az Margin LL
Owner Loading
Freq/Pol

21 KAHALELANI HIILIO POINT HI 150.88 79.2 13.0 148.3 286.7-149.1 30.0LM
21 10 33 157 10 39 KUT64 19.81 335.3 5.2 A21620 108.9 4.9 2.0
S00020: AERONAUTICAL RADIO INC - ARINC 48 CH MSG RCN:
2131.6000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W

OH LOSS 20% / 0.0025%: Did not profile

22 ROUND TOP HIKALANIMOKU HI 327.66 80.0 13.0 146.0 218.7-149.2 20.0LM
21 18 53 157 49 15 WNEM417 29.57 38.6 4.8 A21950 111.0 4.8 4.0
S00403: HAWAII STATE 96 CH MSG RCN:
2146.0000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

23 MALAE HIP KALAHEO HI 83.82 78.6 13.0 146.0 220.6-149.8 30.0LM
21 25 34 157 45 32 WHI547 5.18 73.5 1.2 A24235 107.4 4.2 1.0
S00404: HAWAIIAN ELECTRIC CO INC 24 CH MSG RCN: 86041842
2141.2000V
Status: L Equipment: PASSIV Emission: F8W
OH LOSS 20% / 0.0025%: Did not profile

24 MUANA LOA HIILIO POINT HI 408.43 79.6 13.0 148.3 287.3-151.7 30.0LM
21 7 41 157 11 22 KUT60 12.19 304.4 1.6 A20220 110.0 2.3 1.0
S00020: AERONAUTICAL RADIO INC - ARINC 48 CH MSG RCN:
2134.8000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

25 WAIMANALO HIBATTERY DGE HI 398.37 79.4 13.0 146.5 231.9-153.8 30.0LM
21 19 13 157 40 56 WEW55 10.67 46.3 -1.3 M20251 109.5 0.2 2.0
S00403: HAWAII STATE 96 CH MSG RCN: 89011328
2138.0000H
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

Great Circle Interference Conflicts
05/2/2003

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Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path Gnd EDISCT GES FSLoss Dist PR TPWR Plan
Latitude Longitude ACL TDISCT GTS TANT Az Margin LL
Owner Loading
Freq/Pol

26 ROUND TOP HIKALANIMOKU HI 327.66 80.0 13.0 146.0 218.7-154.2 30.0LM
21 18 53 157 49 15 WNEM417 28.04 38.6 4.8 A21950 111.0 -0.2 9.0

S00403: HAWAII STATE 96 CH MSG RCN:
2133.2000H
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

27 P KALAHEO HIMALAE HI 253.29 79.0 13.0 146.0 219.6-154.8 -9.0HM
21 23 55 157 46 45 KTS97P 9.14 254.4 -1.8 A22290 108.3 -0.8 3.0
S00404: HAWAIIAN ELECTRIC CO INC 24 CH MSG RCN: 86041842
2191.2000H
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

28 P KALAHEO HIKOOLAU SUBS HI 253.29 79.0 13.0 146.0 219.6-154.8 -9.0LM
21 23 55 157 46 45 WHI547P 9.14 65.9 2.2 A22290 108.3 -0.8 7.0
S00404: HAWAIIAN ELECTRIC CO INC 24 CH MSG RCN: 86041842
2141.2000V
Status: L Equipment: 2I2Y03 Emission: 800KF9W
OH LOSS 20% / 0.0025%: Did not profile

29 KOOLAU SUBS HIP KALAHEO HI 83.52 79.2 13.0 146.0 218.6-155.5 30.0HM
21 23 0 157 47 40 KTS97 11.58 246.5 -4.5 A24235 108.9 -1.5 1.0
S00404: HAWAIIAN ELECTRIC CO INC 24 CH MSG RCN: 86041842
2191.2000V
Status: L Equipment: PASSIV Emission: F8W
OH LOSS 20% / 0.0025%: Did not profile

30 MT MAUNA KA HIROUND TOP HI 841.25 80.2 13.0 144.7 188.3-155.9 30.0HM
21 24 18 158 5 53 WHH637 9.14 182.9 -6.2 A21950 111.4 -1.9 1.0
S00403: HAWAII STATE 96 CH MSG RCN:
2186.4000H
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

Great Circle Interference Conflicts
05/2/2003

Earth Station Name KAUAI HI
Owner SKYTOWER, INC
Latitude (DMS) (NAD83) 22 2 2.5 N
Longitude (DMS) (NAD83)159 47 21.7 W
Ground Elevation (Ft/m) 3800.19 / 1158.24 AMSL
Antenna Centerline (Ft/m) 1200.06 / 365.76 AGL
Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path		Gnd EDISCT	GES FSLoss	Dist	PR	TPWR Plan
Latitude	Longitude	ACL TDISCT	GTS TANT	Az	Margin	LL
Owner			Loading			
Freq/Pol						

31 PUKELE HIWAAHILA PR HI 163.50 79.9 13.0 146.1 222.2-155.9 30.0HM
21 18 46 157 47 11 WEF541 6.10 37.4 1.2 M20300 110.7 -1.9 7.0
S00404: HAWAIIAN ELECTRIC CO INC 96 CH MSG RCN: 96070505
2192.8000H
Status: O Equipment: PASSIV Emission: F8W
OH LOSS 20% / 0.0025%: Did not profile

32 AWANUI HIHONOLULU HI 487.68 80.5 13.0 144.8 190.9-157.1 30.0HM
21 22 30 158 5 5 KUT62 1.83 189.1 -7.3 A23820 112.2 -3.1 1.0
S00020: AERONAUTICAL RADIO INC - ARINC 48 CH MSG RCN:
2181.6000V
Status: Q Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

33 AWANUI HIMUANA LOA HI 487.68 80.5 13.0 144.8 190.9-157.6 30.0HM
21 22 30 158 5 5 KUT62 1.83 186.6 -7.8 A24235 112.2 -3.6 1.0
S00020: AERONAUTICAL RADIO INC - ARINC 48 CH MSG RCN:
2189.6000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

34 PUU MANAWAH HIDIAMOND HEADHI 727.25 80.5 13.0 144.7 188.4-157.9 30.0LM
21 23 9 158 6 19 WEW51 15.24 180.1 -6.2 A21950 112.1 -3.9 3.0
S00403: HAWAII STATE 96 CH MSG RCN: 88080556
2134.8000V
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

35 KALANIMOKU HIROUND TOP HI 3.05 80.3 13.0 145.9 215.9-158.1 30.0HM
21 18 18 157 51 18 WHI804 21.95 219.2 -6.2 A21950 111.6 -4.1 2.0
S00403: HAWAII STATE 96 CH MSG RCN:
2183.2000H
Status: L Equipment: 2I2Y02 Emission: 1M60F9W
OH LOSS 20% / 0.0025%: Did not profile

Great Circle Interference Conflicts
05/2/2003

Earth Station Name KAUAI HI
Owner SKYTOWER, INC
Latitude (DMS) (NAD83) 22 2 2.5 N
Longitude (DMS) (NAD83)159 47 21.7 W
Ground Elevation (Ft/m) 3800.19 / 1158.24 AMSL
Antenna Centerline (Ft/m) 1200.06 / 365.76 AGL
Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

Terrestrial Path Gnd EDISCT GES FSLoss Dist PR TPWR Plan

```
   Latitude        Longitude       ACL TDISCT  GTS   TANT    Az Margin LL
   Owner                                        Loading
   Freq/Pol

 36 BATTERY DGE HIWAIMANALO   HI   122.53  80.5  13.0 146.1  222.8-158.4 30.0HM
    21 15 59 157 48  0 WNEX705       3.05 228.8  -6.3 M20251 112.1 -4.4   2.0
   S00403:  HAWAII STATE                        96  CH   MSG RCN:  89011328
  2188.0000H
   Status:  L                       Equipment: 2I2Y02   Emission: 1M60F9W
   OH LOSS  20% / 0.0025%:  Did not profile
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***** END OF GREAT CIRCLE CASES REPORT ****

Earth Station Preliminary Analysis Report
05/2/2003

Earth Station Name KAUAI HI
Owner SKYTOWER, INC
Latitude (DMS) (NAD83) 22 2 2.5 N
Longitude (DMS) (NAD83)159 47 21.7 W
Ground Elevation (Ft/m) 3800.19 / 1158.24 AMSL
Antenna Centerline (Ft/m) 1200.06 / 365.76 AGL
Antenna Model FCC Reference 32-25LOG(THETA)
Objectives: Transmit -154.0 (dBW /4 kHz) TX Power -17.0 (dBW/4 kHz)

	Path	Band (GHz)	Azimuth (Deg)	Dist (Km)	Margin dB	EST OH Loss dB	EST Margin dB	
1.	DIAMOND HEAD-FROM-PUU MANAWAH	3	112.1	222.7	34.1	40.87	-6.8	
2.	ROUND TOP -FROM-MT MAUNA KA	3	111.0	218.7	29.8	40.40	-10.5	
3.	KUKUIOLONO -FROM-WAIMEA	3	115.5	30.5	29.8	0.00	29.7	***
4.	LIHUE SOB -FROM-MT KILOHANA	3	98.4	44.1	27.7	0.00	27.7	***
5.	AUKELE ST -FROM-GROVE FARM	3	99.2	45.2	20.5	0.00	20.5	***
6.	KAPAA FIRE -FROM-KAHILI SITE	3	86.5	48.3	18.9	1.06	17.8	***
7.	MUANA LOA -FROM-AWANUI	3	110.0	287.3	18.8	47.50	-28.7	
8.	MT KAHILI -FROM-KUKUIOLONO	3	100.9	34.4	17.3	0.00	17.3	***
9.	WAIMEA -FROM-KUKUIOLONO	3	126.5	13.9	16.2	0.00	16.1	***
10.	KUKUIOLONO -FROM-MT KAHILI	3	115.5	30.5	15.9	0.00	15.8	***
11.	ANAHOLA -FROM-MT KAHILI	3	76.8	50.5	14.5	2.20	12.2	***
12.	HONOLULU -FROM-AWANUI	3	111.3	210.5	13.8	39.39	-25.5	
13.	ANAHOLA -FROM-KILAUEA	3	76.8	50.5	13.5	2.20	11.2	***
14.	KAHILI SITE -FROM-KAPAA FIRE	3	102.4	31.0	13.2	0.00	13.2	***
15.	MT KAHILI -FROM-ANAHOLA	3	100.9	34.4	12.8	0.00	12.8	***
16.	KILAUEA -FROM-ANAHOLA	3	62.7	45.8	11.9	0.00	11.8	***
17.	DIAMOND HEAD-FROM-MT KAALA	3	112.1	222.7	11.8	40.87	-29.0	
18.	MT KILOHANA -FROM-LIHUE SOB	3	96.7	39.7	9.6	0.00	9.6	***
19.	GROVE FARM -FROM-AUKELE ST	3	107.0	35.7	6.0	0.00	5.9	***
20.	WAAHILA PR -FROM-WARD AVENUE	3	110.8	221.4	5.2	40.71	-35.4	
21.	KAHALELANI -FROM-ILIO POINT	3	108.9	286.7	4.9	47.44	-42.5	
22.	ROUND TOP -FROM-KALANIMOKU	3	111.0	218.7	4.8	40.40	-35.5	
23.	MALAE -FROM-P KALAHEO	3	107.4	220.6	4.2	40.61	-36.4	
24.	MUANA LOA -FROM-ILIO POINT	3	110.0	287.3	2.3	47.50	-45.2	
25.	WAIMANALO -FROM-BATTERY DGE	3	109.5	231.9	0.2	41.92	-41.7	
26.	ROUND TOP -FROM-KALANIMOKU	3	111.0	218.7	-0.2	40.40	-40.5	

27.	P KALAHEO	-FROM-MALAE	3	108.3	219.6	-0.8	40.49	-41.3
28.	P KALAHEO	-FROM-KOOLAU SUBS	3	108.3	219.6	-0.8	40.49	-41.3
29.	KOOLAU SUBS	-FROM-P KALAHEO	3	108.9	218.6	-1.5	40.38	-41.8
30.	MT MAUNA KA	-FROM-ROUND TOP	3	111.4	188.3	-1.9	36.50	-38.3
31.	PUKELE	-FROM-WAAHILA PR	3	110.7	222.2	-1.9	40.80	-42.6
32.	AWANUI	-FROM-HONOLULU	3	112.2	190.9	-3.1	36.85	-39.9
33.	AWANUI	-FROM-MUANA LOA	3	112.2	190.9	-3.6	36.85	-40.4
34.	PUU MANAWAH	-FROM-DIAMOND HEAD	3	112.1	188.4	-3.9	36.51	-40.3
35.	KALANIMOKU	-FROM-ROUND TOP	3	111.6	215.9	-4.1	40.05	-44.1
36.	BATTERY DGE	-FROM-WAIMANALO	3	112.1	222.8	-4.4	40.87	-45.3