

Downlink :		LA	CONUS		99.9%	
Satellite Location		103.15	WL			
Uplink			Downlink		Clear	Rain
UL Freq	GHz	25.0	DL Freq	GHz	17.5	17.5
ES Ant Dia	m	13.0	ES Ant Dia	inches	18.0	18.0
ES Ant Gain	dBW	67.6	Satellite EIRP	dBW	54.1	54.1
ES Tx Power	dBW	12.0	ES ptg loss	dB	-0.1	-0.1
ES OBO	dBW	-3.0	Free space loss	dB	-208.7	-208.7
ES Output Losses	dBW	-1.5	Atmos/Scint loss	dB	-0.5	-0.5
ES ptg loss	dB	-0.5	Rain & Other loss	dB	0.0	-3.1
ES EIRP (Clear)	dBW	74.6	Wetting loss	dB	0.0	-0.5
Free space loss	dB	-211.8	Total loss	dB	-209.4	-213.0
Sat G/T	dB/K	17.5	ES G/T	dB/K	16.4	13.9
C/N (thermal)	dB	34.8	Bandwidth	dB-Hz	74.1	74.1
Control	dB	6.5	C/N (thermal)	dB	15.6	9.5
UL Spot Beam Interf	dB	35.0	DL Spot Beam Interf	dB	50.0	50.0
Adj Carr Interf	dB	30.0	Adj Carr Interf	dB	30.0	30.0
Adj Sat Interf	dB	50.0	Adj Sat Interf	dB	20.9	20.9
Cross Pol	dB	30.0	Cross Pol	dB	25.0	25.0
Total UL C/I	dB	26.3	Total DL C/I	dB	19.1	19.1

### SUMMARY

Clear			Rain		
UL C/N (thermal)	dB	34.8	UL C/N (thermal)	dB	34.8
DL C/N (thermal)	dB	15.6	DL C/N (thermal)	dB	9.5
Total UL C/I	dB	26.3	Total UL C/I	dB	26.3
Total DL C/I	dB	19.1	Total DL C/I	dB	19.1
Total C/(N+I)	dB	13.7	Total C/(N+I)	dB	9.0
Req'd C/(N+I)	dB	7.1	Req'd C/(N+I)	dB	7.1

Downlink : NY CONUS 99.9%  
 Satellite Location 103.15 WL

Uplink			Downlink			Clear	Rain
UL Freq	GHz	25.0	DL Freq	GHz	17.5	17.5	
ES Ant Dia	m	13.0	ES Ant Dia	inches	26.0	26.0	
ES Ant Gain	dBW	67.6	Satellite EIRP	dBW	55.7	55.7	
ES Tx Power	dBW	12.0	ES ptg loss	dB	-0.2	-0.2	
ES OBO	dBW	-3.0	Free space loss	dB	-209.0	-209.0	
ES Output Losses	dBW	-1.5	Atmos/Scint loss	dB	-0.7	-0.7	
ES ptg loss	dB	-0.5	Rain & Other loss	dB	0.0	-7.1	
ES EIRP (Clear)	dBW	74.6	Wetting loss	dB	0.0	-0.5	
Free space loss	dB	-211.8	Total loss	dB	-209.9	-217.5	
Sat G/T	dB/K	17.5	ES G/T	dB/K	19.3	16.1	
C/N (thermal)	dB	34.8	Bandwidth	dB-Hz	74.1	74.1	
Control	dB	6.5	C/N (thermal)	dB	19.6	8.8	
UL Spot Beam Interf	dB	35.0	DL Spot Beam Interf	dB	50.0	50.0	
Adj Carr Interf	dB	30.0	Adj Carr Interf	dB	30.0	30.0	
Adj Sat Interf	dB	50.0	Adj Sat Interf	dB	23.8	23.8	
Cross Pol	dB	30.0	Cross Pol	dB	25.0	25.0	
Total UL C/I	dB	26.3	Total DL C/I	dB	20.8	20.8	

### SUMMARY

Clear			Rain		
UL C/N (thermal)	dB	34.8	UL C/N (thermal)	dB	34.8
DL C/N (thermal)	dB	19.6	DL C/N (thermal)	dB	8.8
Total UL C/I	dB	26.3	Total UL C/I	dB	26.3
Total DL C/I	dB	20.8	Total DL C/I	dB	20.8
Total C/(N+I)	dB	16.6	Total C/(N+I)	dB	8.4
Req'd C/(N+I)	dB	7.1	Req'd C/(N+I)	dB	7.1

Downlink : MIAMI			CONUS			99.8%		
Satellite Location 103.15 WL								
Uplink			Downlink			Clear		Rain
UL Freq	GHz	25.0	DL Freq	GHz	17.5	17.5		
ES Ant Dia	m	13.0	ES Ant Dia	inches	26.0	26.0		
ES Ant Gain	dBW	67.6	Satellite EIRP	dBW	60.5	60.5		
ES Tx Power	dBW	12.0	ES ptg loss	dB	-0.2	-0.2		
ES OBO	dBW	-3.0	Free space loss	dB	-209.0	-209.0		
ES Output Losses	dBW	-1.5	Atmos/Scint loss	dB	-0.5	-0.5		
ES ptg loss	dB	-0.5	Rain & Other loss	dB	0.0	-9.7		
ES EIRP (Clear)	dBW	74.6	Wetting loss	dB	0.0	-0.5		
Free space loss	dB	-211.8	Total loss	dB	-209.4	-219.9		
Sat G/T	dB/K	17.5	ES G/T	dB/K	19.6	15.8		
C/N (thermal)	dB	34.8	Bandwidth	dB-Hz	74.1	74.1		
Control	dB	6.5	C/N (thermal)	dB	25.2	11.2		
UL Spot Beam Interf	dB	35.0	DL Spot Beam Interf	dB	50.0	50.0		
Adj Carr Interf	dB	30.0	Adj Carr Interf	dB	30.0	30.0		
Adj Sat Interf	dB	50.0	Adj Sat Interf	dB	24.2	24.2		
Cross Pol	dB	30.0	Cross Pol	dB	25.0	25.0		
Total UL C/I	dB	26.3	Total DL C/I	dB	21.0	21.0		

### SUMMARY

Clear			Rain		
UL C/N (thermal)	dB	34.8	UL C/N (thermal)	dB	34.8
DL C/N (thermal)	dB	25.2	DL C/N (thermal)	dB	11.2
Total UL C/I	dB	26.3	Total UL C/I	dB	26.3
Total DL C/I	dB	21.0	Total DL C/I	dB	21.0
Total C/(N+I)	dB	18.6	Total C/(N+I)	dB	10.6
Req'd C/(N+I)	dB	7.1	Req'd C/(N+I)	dB	7.1

Downlink : HONOLULU CONUS 99.0%

Satellite Location 103.15 WL

Uplink			Downlink			Clear	Rain
UL Freq	GHz	25.0	DL Freq	GHz	17.5	17.5	
ES Ant Dia	m	13.0	ES Ant Dia	inches	36.0	36.0	
ES Ant Gain	dBW	67.6	Satellite EIRP	dBW	50.4	50.4	
ES Tx Power	dBW	12.0	ES ptg loss	dB	-0.4	-0.4	
ES OBO	dBW	-3.0	Free space loss	dB	-209.1	-209.1	
ES Output Losses	dBW	-1.5	Atmos/Scint loss	dB	-0.9	-0.9	
ES ptg loss	dB	-0.5	Rain & Other loss	dB	0.0	-5.0	
ES EIRP (Clear)	dBW	74.6	Wetting loss	dB	0.0	-0.5	
Free space loss	dB	-211.8	Total loss	dB	-210.5	-216.0	
Sat G/T	dB/K	17.5	ES G/T	dB/K	21.8	19.2	
C/N (thermal)	dB	34.8	Bandwidth	dB-Hz	74.1	74.1	
Control	dB	6.5	C/N (thermal)	dB	16.2	8.0	
UL Spot Beam Interf	dB	35.0	DL Spot Beam Interf	dB	50.0	50.0	
Adj Carr Interf	dB	30.0	Adj Carr Interf	dB	30.0	30.0	
Adj Sat Interf	dB	50.0	Adj Sat Interf	dB	26.4	26.4	
Cross Pol	dB	30.0	Cross Pol	dB	25.0	25.0	
Total UL C/I	dB	26.3	Total DL C/I	dB	21.9	21.9	

#### SUMMARY

Clear			Rain		
UL C/N (thermal)	dB	34.8	UL C/N (thermal)	dB	34.8
DL C/N (thermal)	dB	16.2	DL C/N (thermal)	dB	8.0
Total UL C/I	dB	26.3	Total UL C/I	dB	26.3
Total DL C/I	dB	21.9	Total DL C/I	dB	21.9
Total C/(N+I)	dB	14.8	Total C/(N+I)	dB	7.8
Req'd C/(N+I)	dB	7.1	Req'd C/(N+I)	dB	7.1