TECHNICAL REPORT #2273

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SPECTRUM ORBIT UTILIZATION PROGRAM DOCUMENTATION: SOUP5 VERSION 3.8 USER'S MANUAL - VOLUME II (APPENDICES A THROUGH G)

CR-174890
FINAL REPORT

JUNE 10, 1985

J. DAVIDSON, H. R. OTTEY, P. SAWITZ AND F. S. ZUSMAN

PREPARED UNDER CONTRACT NO. NAS3-22885
FOR NASA LEWIS RESEARCH CENTER

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Silver Spring, Maryland 20910

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ORBIT SPECTRUM UTILIZATION
COMPUTER PROGRAMS
USER MANUAL (COMP. PROG.)

ERROR CORRECTING CODES
CHECKOUT
CHANNEL CAPACITY

J. DAVIDSON, H. R. OTTEY, P. SAWITZ AND
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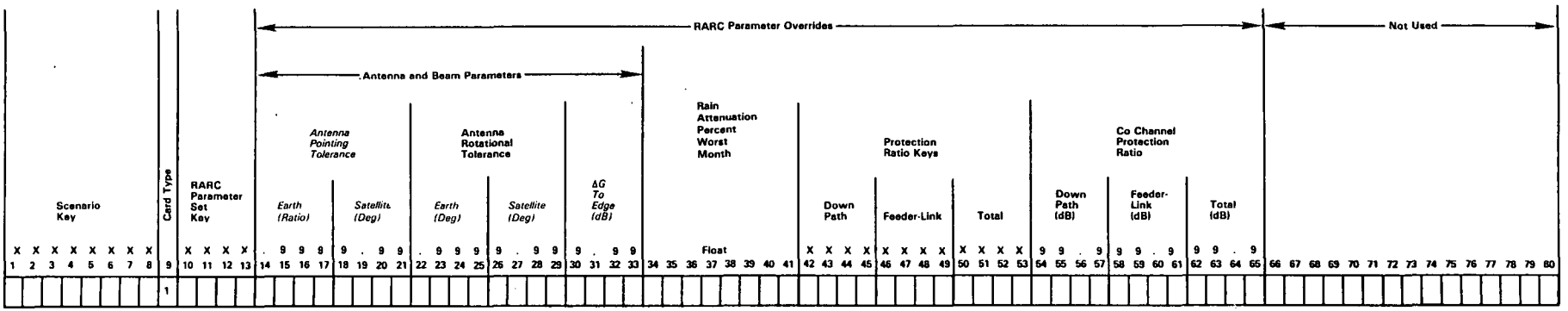
APPENDIX A
DATA INPUT FORMS

The following pages contain input forms which may be used to prepare data for the SOUP5V3.4 version of the R2BCSAT-83 data base. The contents of the fields on these forms were discussed in detail in Chapter 3 of this manual.

SOUP5 INPUT

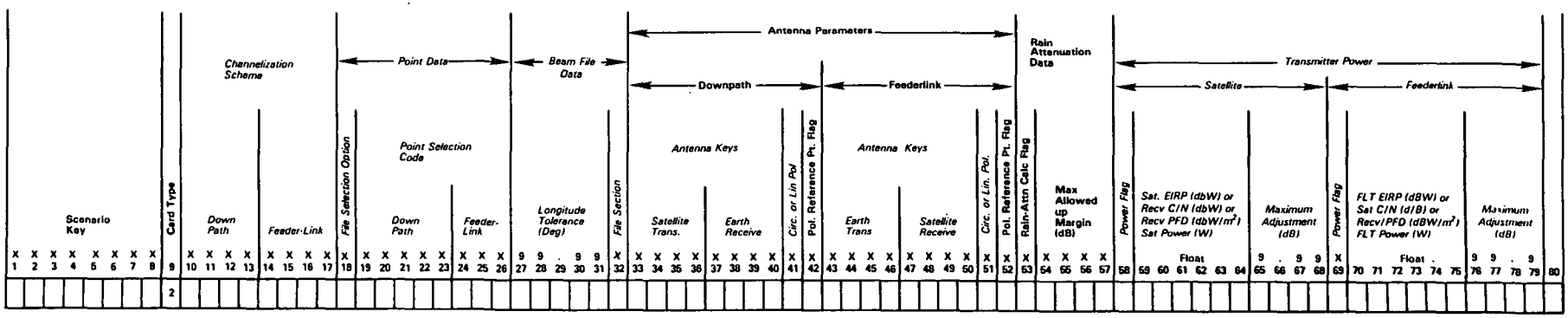
Scenario
Card 1



Items Written with this Type can be Overridden by the Service Area Level Data

SOUP5 INPUT

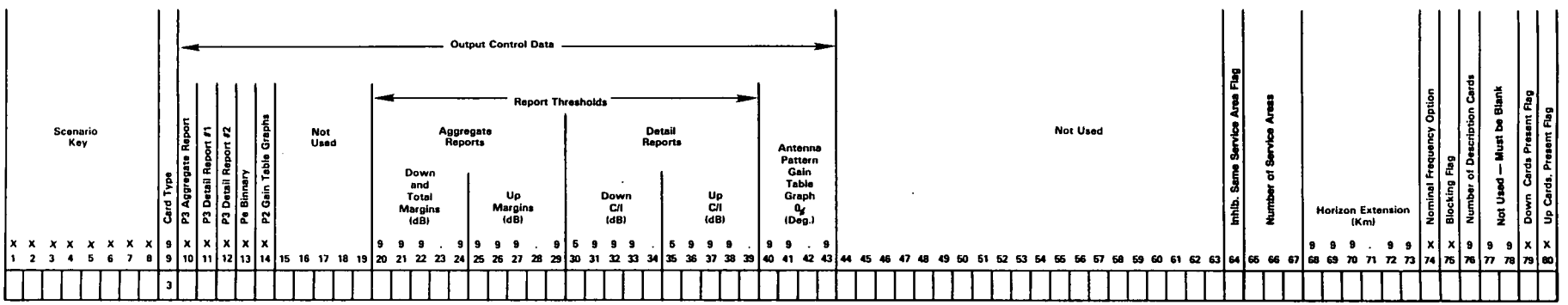
Scenario Card 2



Items Written with this Type can be Overridden by the Service Area Level Data

SOUP5 INPUT

Scenario Card 3

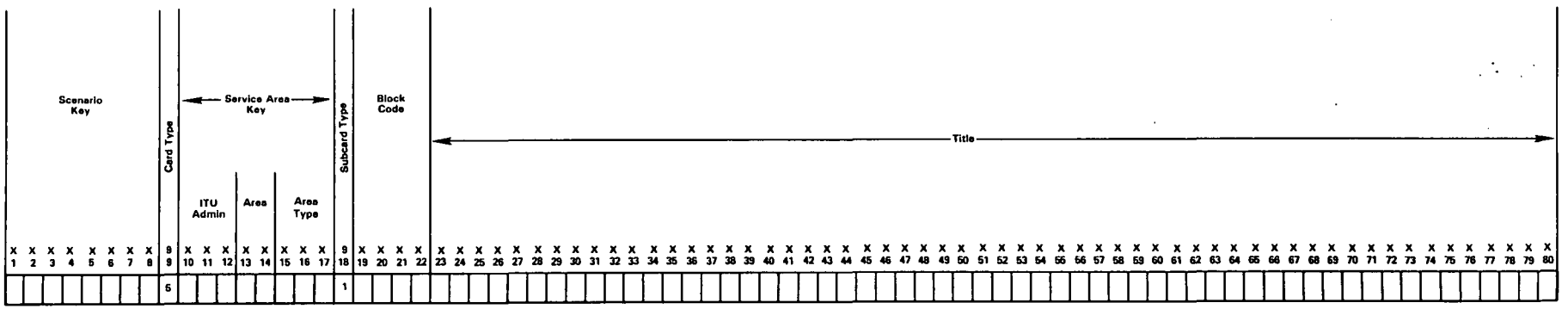


SOUP5 INPUT

Scenario
Card 4

SOUP5 INPUT

Scenario
Service Area
Card 5-1



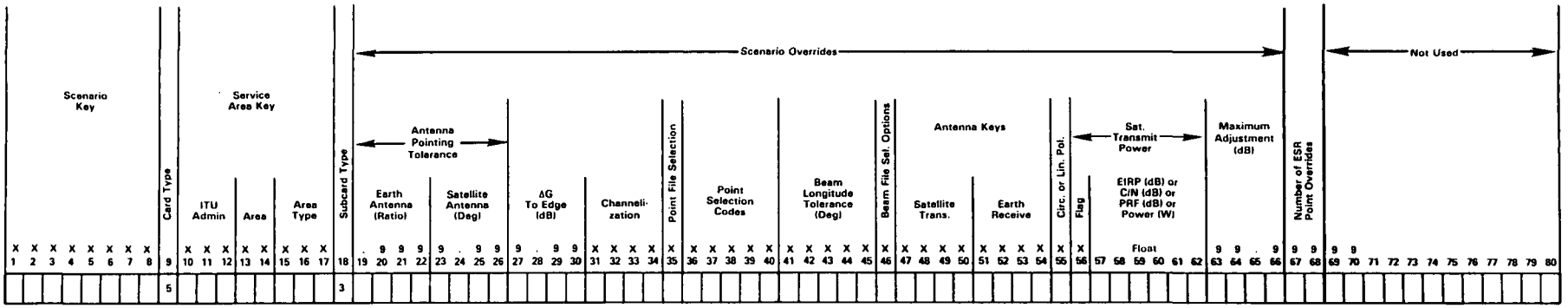
SOUP5 INPUT

Scenario Service Area Downpath Card 5-2

Field	Card Columns	Format	Value
Scenario Key	1–8	X X X X X X X X	
Card Type	9		5
Service Area Key: ITU Admin	10–12	X X X	
Service Area Key: Area	13–14	X X	
Service Area Key: Area Type	15–17	X X X	
Subcard Type	18		2
Up/Down Override	19	X	
Point Set Key Data — Service Area Key Override: ITU Admin	20–22	X X X	
Point Set Key Data — Service Area Key Override: Area	23–24	X X	
Point Set Key Data — Service Area Key Override: Area Type	25–27	X X X	
Satellite Longitude (Deg-E)	28–34	S 9 9 9 9 . 9	
Pointing Error (Deg)	35–38	9 . 9 9	
Rot. Error (Deg)	39–42	9 . 9 9	
Satellite Latitude (Deg-N)	43–47	S 9 9 . 9	
Channel Family	48–49	X X	
Polarization Angle (Deg)	50–54	S 9 9 . 9	
	55–80		

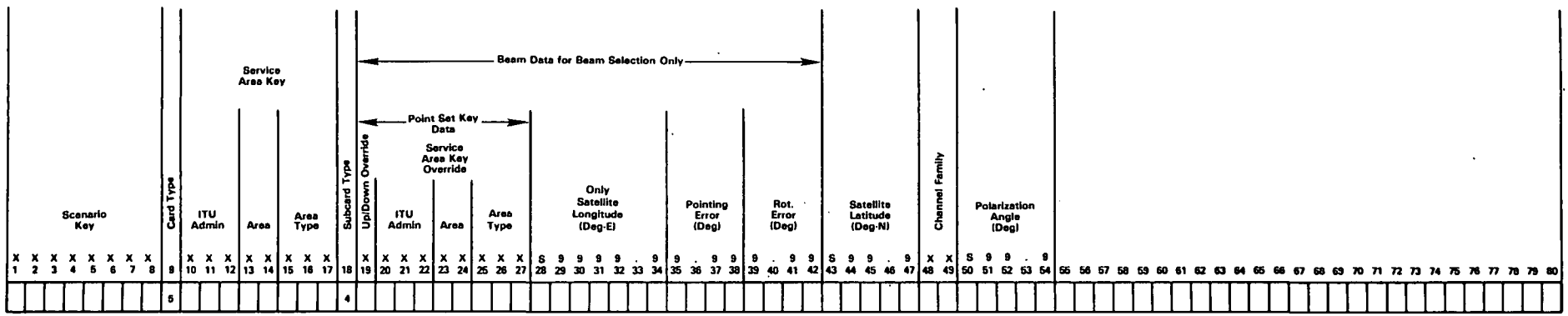
Beam Data for Beam Selection Only: columns 19–42

Scenario Service Area Downpath Overrides Card 5-3



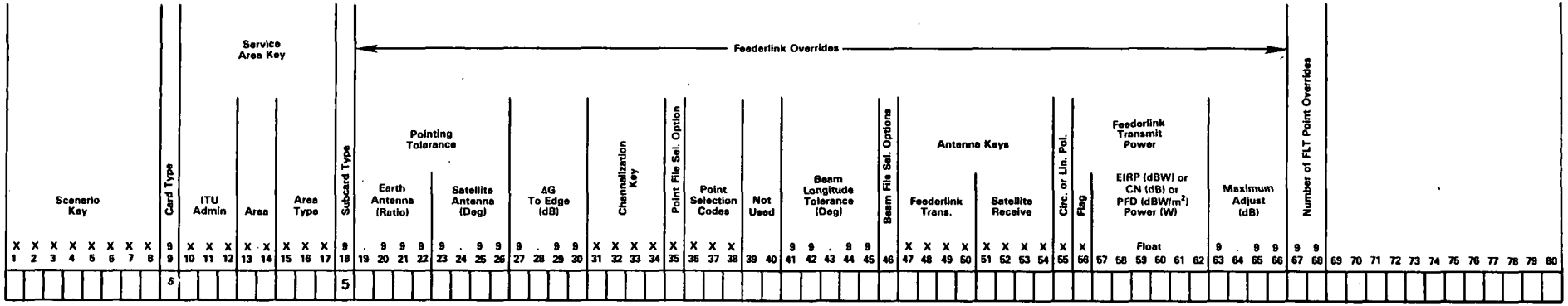
SOUP5 INPUT

Scenario
Service Area
Feederlink
Card 5-4



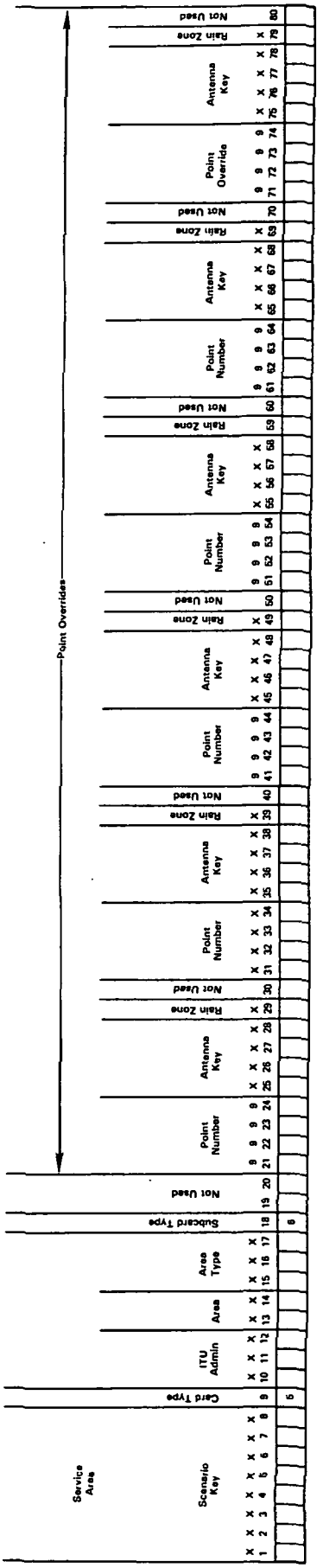
SOUP5 INPUT

Scenario
Service Area
Feederlink
Overrides
Card 5-5



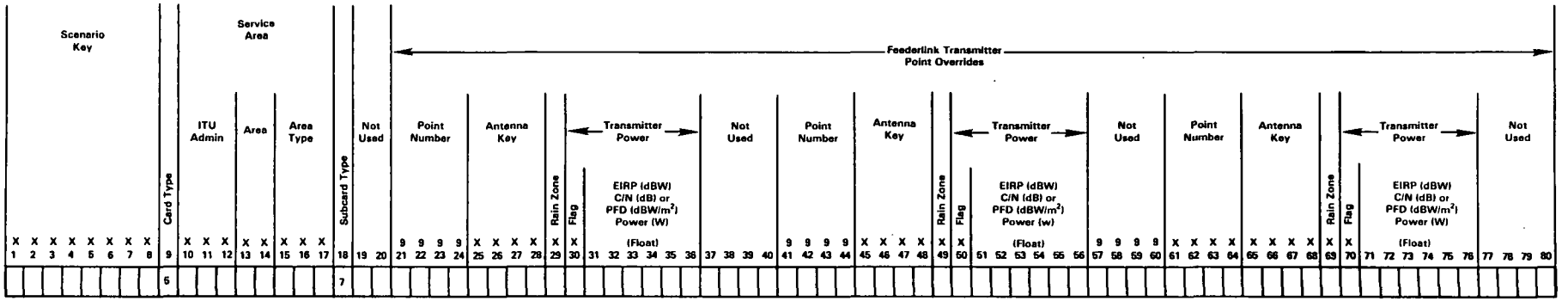
SOUP5 INPUT

Scenario
Service Area
ESR Point Override
Card 5-6



SOUP5 INPUT

Scenario
Service Area
FLT Point Override
Card 5-7



SOUP5 INPUT

Parameters
RARC
Card 1

Group	Subgroup	Field	Columns	Format
		RARC Key	1–4	X X X X
		Card Type	5	
		Official Flag	6	X
Antenna and Beam Parameters		Min Satellite Antenna Beamwidth (Deg)	7–11	9 9 . 9 9
Antenna and Beam Parameters		Max Satellite Antenna Axial Ratio	12–15	9 . 9 9
Antenna and Beam Parameters		Min Feederlink Antenna Diameter (m)	16–19	9 . 9 9
Tolerances	*Pointing*	*Earth Antenna (Ratio)*	20–23	9 . 9 9
Tolerances	*Pointing*	*Satellite Antenna (Deg)*	24–27	. 9 9 9
Tolerances	*Rotational*	*Earth Antenna (Deg)*	28–31	9 . 9 9
Tolerances	*Rotational*	*Satellite Antenna (Deg)*	32–35	9 . 9 9
		ΔG To Edge (db)	36–39	9 . 9 9
		Description	40–80	X (each column)

Items Written With this Type can be Overridden by the Scenario Data

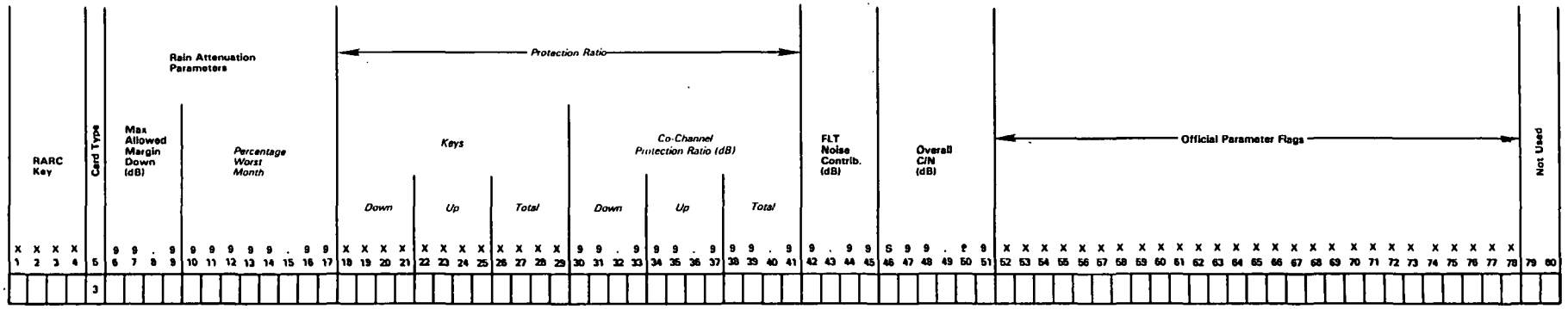
SOUP5 INPUT

Parameters
RARC
Card 2

Channelization Parameters

Field			Columns	Format
RARC Key			1–4	X X X X
Card Type			5	2
Feederlink	Bandedge Frequency	Lower (GHz)	6–11	9 9 9 . 9 9
Feederlink	Bandedge Frequency	Upper (GHz)	12–17	9 9 9 . 9 9
Feederlink	Guardband Width	Lower (MHz)	18–22	9 9 . 9 9
Feederlink	Guardband Width	Upper (MHz)	23–27	9 9 . 9 9
Down Path	Bandedge Frequency	Lower (MHz)	28–33	9 9 9 . 9 9
Down Path	Bandedge Frequency	Upper (GHz)	34–39	9 9 9 . 9 9
Down Path	Guardband Width	Lower (MHz)	40–44	9 9 . 9 9
Down Path	Guardband Width	Upper (MHz)	45–49	9 9 . 9 9
Down Path	Band-Width Coeff.		50–53	9 . 9 9
Title			54–80	X X X X X X X X X X X X X X X X X X X X X X X X X X X

SOUP5 INPUT



Items Written in this Type can be Overriden by Scenario Level Data

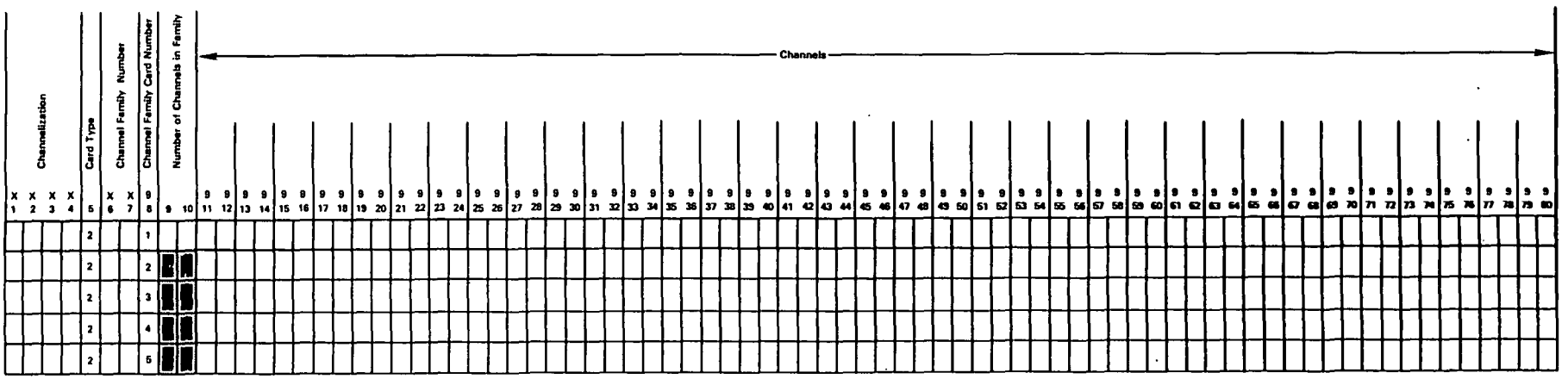
SOUP5 INPUT

Parameters
Channelization

Field	Columns	Format	Entry
Channelization Key	1–4	X X X X	
Card Type	5		1
Up/Down Flag	6	X	
Lowest Center Frequency (GHz)	7–13	9 9 9 . 9 9 9	
Number of Channels	14–15	9 9	
Channel Bandwidth (MHz)	16–20	9 9 . 9 9	
Channel Separation (MHz)	21–25	9 9 . 9 9	
Channel Noise Bandwidth (MHz)	26–30	9 9 . 9 9	
Top Baseband Frequency (MHz)	31–35	9 9 . 9 9	
Peak-to-Peak Deviation (MHz)	36–40	9 9 . 9 9	
Official Flag	41	X	
Number of Channel Families	42–43	9 9	
Description	44–80	X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X	

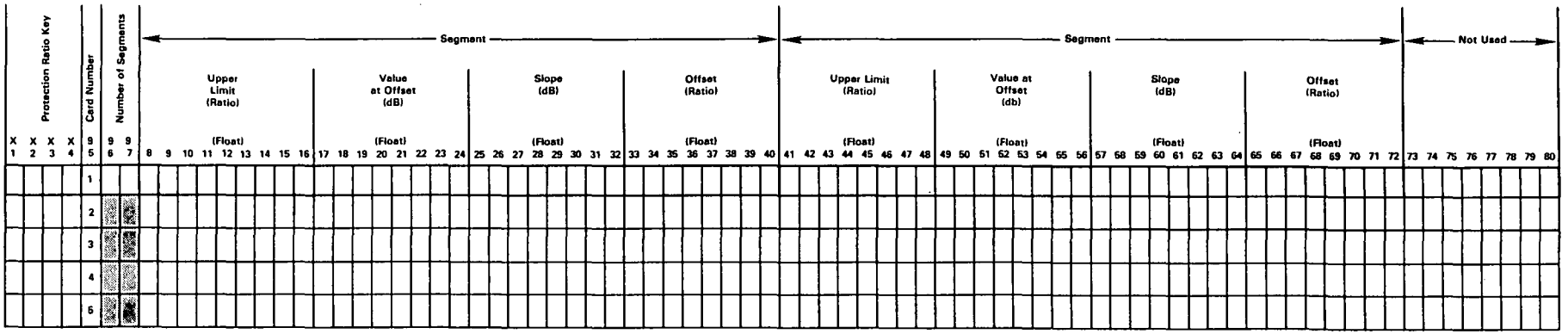
SOUP5 INPUT

Parameters
Channel Family

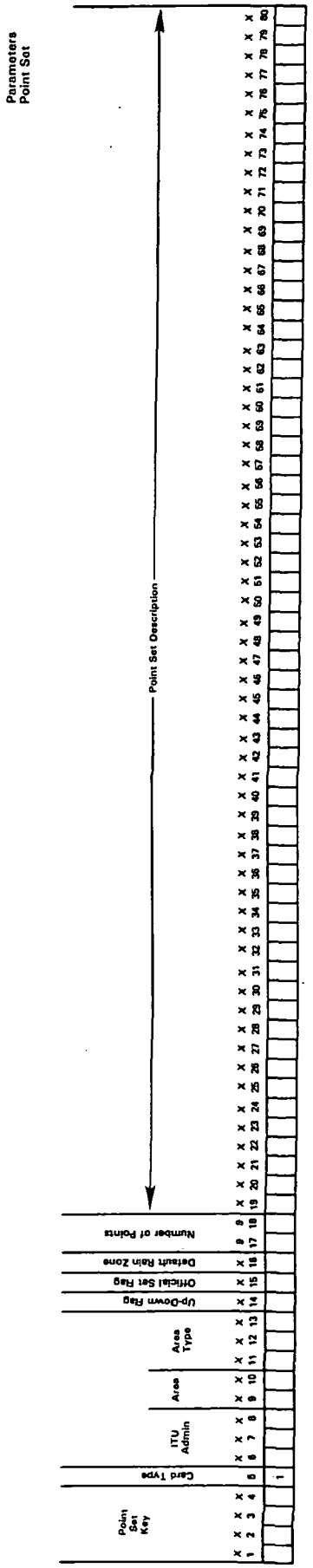


SOUP5 INPUT

Parameters
Protection Ratio

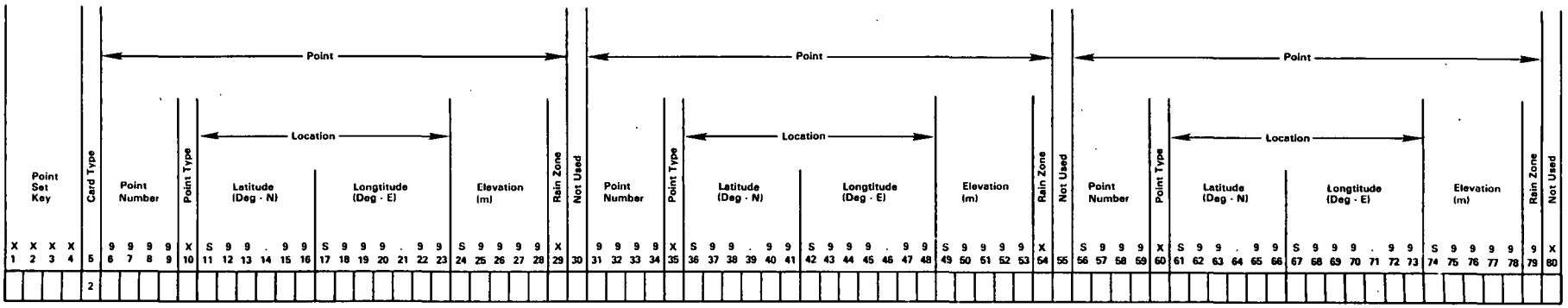


SOUP5 INPUT



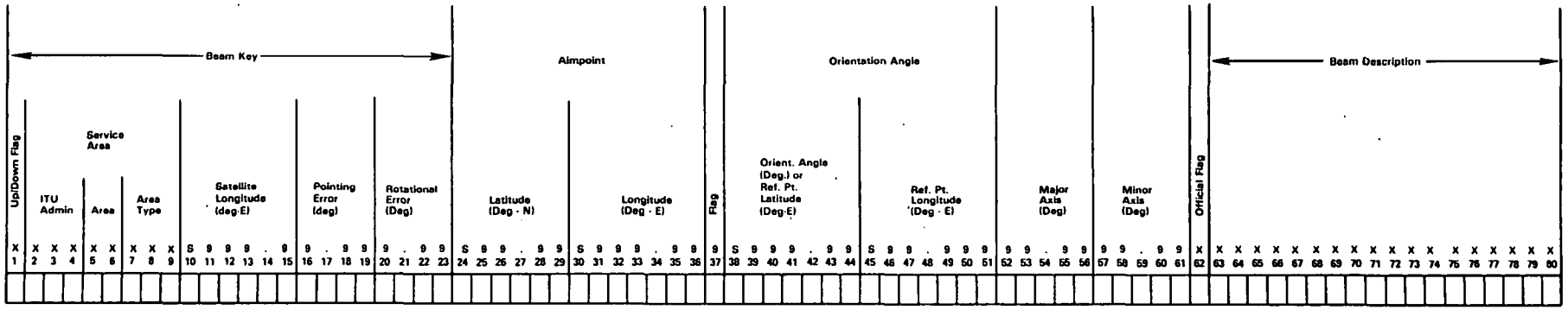
SOUP5 INPUT

Parameters
Point Set Points



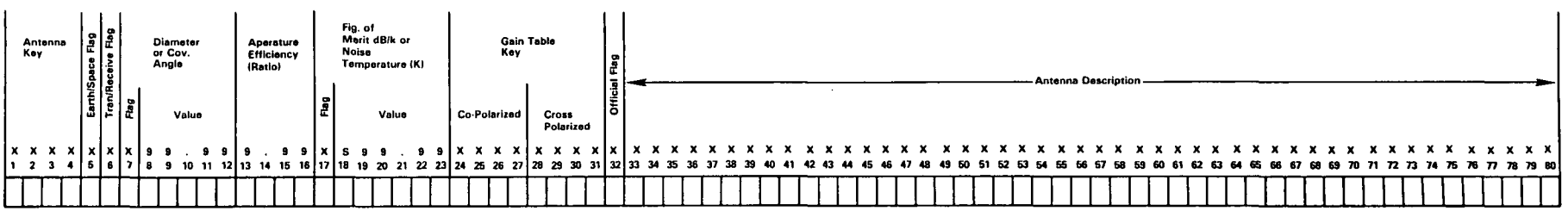
SOUP5 INPUT

Parameters
Ellipses



SOUP5 INPUT

Parameters
Antennas



SOUP5 INPUT SHEET

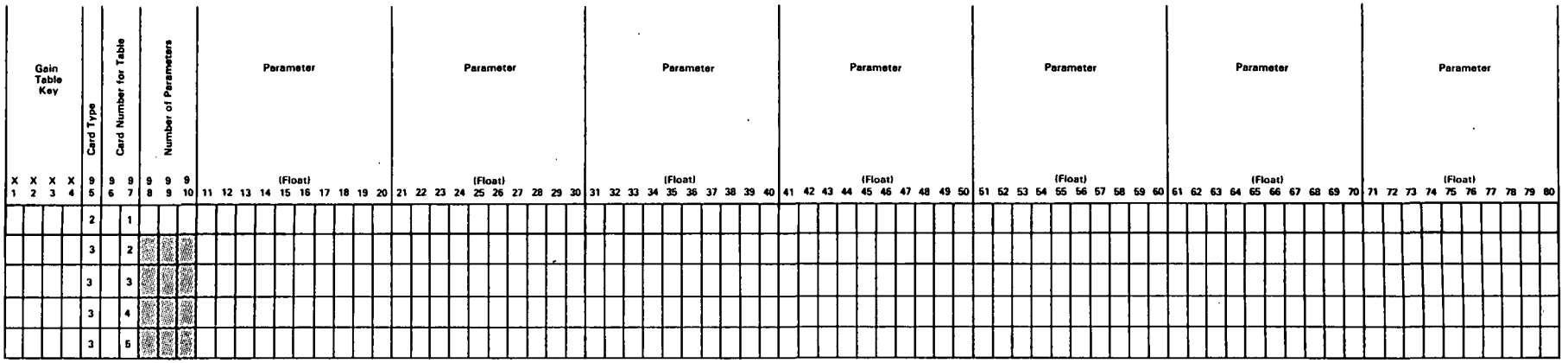
Parameters
Gain Pattern
Card 1

Field	Columns	Format	Entry
Gain Table Key	1 2 3 4	9 9 9 9	
Card Type	5		1
Gain Pattern Type	6 7	9 9	
Option Flag	8 9	9 9	
Number of Cards	10 11 12	9 9 9	
← Table Description →	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	X (each column 13–80)	

ORIGINAL PAGE IS
OF POOR QUALITY

SOUP5 INPUT

Parameters
Gain Pattern
Arbitrary Gain
Function



SOUP5 INPUT SHEET

Parameters
Gain Pattern
Segmented Function

Gain Table Key	Card Type	Segment Sequences	Card Sequences in Segment	Upper Segment Limit Deg. or Ratio	Segment Equation Type	Limit Flag	Number of Coefficients	Coefficient (Float)	Coefficient (Float)	Coefficient (Float)	Coefficient (Float)	Coefficient (Float)	Coefficient (Float)
X X X X		X	X	9 9 9 9 9 9 9 9 9 9	9 9	X	9 9						
1 2 3 4	5	6	7	8 9 10 11 12 13 14 15	16 17	18	19 20	21 22 23 24 25 26 27 28 29 30	31 32 33 34 35 36 37 38 39 40	41 42 43 44 45 46 47 48 49 50	51 52 53 54 55 56 57 58 59 60	61 62 63 64 65 66 67 68 69 70	71 72 73 74 75 76 77 78 79 80
	2		A										
	2		B										
	2		C										
	2		D										
	2		E										

APPENDIX B
INSTALLATION AND CHECKOUT PROCEDURES FOR THE SOUP5 SYSTEM

This appendix describes the IBM job control language which can be used to run the SOUP5 system from a magnetic tape as described. Of course, many possible runtime sequences are possible.

The SOUP5 System is delivered in the form of a magnetic tape containing source code and data files and a card deck to run the system from the tape. The card deck is written in IBM 360/370 OS/MVS job control language (JCL) and must be rewritten in the language of the operating system of the computer on which it is to be installed. A listing of the card deck is attached as Table B-1. It performs the following steps:

1. Reads and copies the program source data card-image data files from tape to temporary disk files:
   a. P1
   b. P2
   c. P3
   d. DATA.P1
   e. DATA.SCENARIO
   f. DATA.PARAMS

2. Compiles and loads each of the three programs, generating temporary load modules for each program, as well as compiler source listings and maps and a loader cross-reference map.

3. Runs in sequence P1, P2, and P3, using the three temporary data files generated in step 1 and the DATA.CONTROL provided on cards in the JCL decks, for the TEST0008 scenario in DATA.SCENARIO.

   The printed outputs this run are sent directly to the system printer, using 133 characters per line output with column 1 of each line controlling printer output spacing and page breaks, in accordance with the standard FORTRAN conventions.

Appendix C contains a copy of the output as run on an IBM-370 system, using the same tape as delivered.

The results of a run on any computer system should be almost identical to those in Appendix C. The possible exceptions are listed below:

1. The format and contents of the programs' compiler/loader source listings, maps, and cross references. No warning or fatal errors may occur.

2. The least significant digits in the outputs of P2 and P3 may vary due to machine precision differences. These must be resolved through numerical analysis.

The user may change input/output unit numbers (from the ones documented in Figure 1) by changing the first card of DATA.P1, DATA.P2, DATA.P3 for Program 1, 2 and 3 respectively. These files are documented in Chapter 3.

APPENDIX C
RESULTS OF JOB USING EXAMPLE JCL

The following pages contain copies of a run using the delivered tape and IBM OS/MVS Job Control Language card deck. ALC ALSO GIVEN

It includes source program compilation listings, load maps, and the results of the TEST0008 scenario run by the deck:

Source program listings and load maps are not included in the User's Manual. They may be found in the Programmer's Manual.

CONTROL INPUT DATA

P1 CONTROL DATA

SCENARIO KEY	DO UP	DO DOWN	STOP CODE
TEST0008	Y	Y	99

1111111111 1111111111 1111111111 1111111111

P2 TO P5 CONTROL DATA

PROG NO.	STOP CODE	DEBUG OPTIONS
2	99	00000000000000000000000000000000000000000000000000000000000000000000000000000000
3	50	00000000000000000000000000000000000000000000000000000000000000000000000000000000
4	50	10101010101010101010100101010101010101010101001010101010101010100000000000000000
5	50	10101010101010101010100101010101010101010101001010101010101010100000000000000000

SCENARIO/PLAN INPUT OVERRIDES FROM CONTROL

SCENARIO KEY	CARD TYPE	RARC KEY	RARC PARAMETER OVERRIDES: POINTING TOL E-ANT (DEG)	POINTING TOL S-ANT (DEG)	ROTATNL TOL E-ANT (DEG)	ROTATNL TOL S-ANT (DB)	DELTA G	RAIN ATTENUA PCT WST MONTH	PROTECTION TEMPLATE KEYS DOWN	PROTECTION TEMPLATE KEYS FLT	PROTECTION TEMPLATE KEYS TOTL	RATIO DATA CO-CHANNEL (DB) DOWN	RATIO DATA CO-CHANNEL (DB) FLT	RATIO DATA CO-CHANNEL (DB) TOTL
TEST0009	1													31.0

SCENARIO KEY	CARD TYPE	CHNLZTION SCHEME DEFAULT DOWN	CHNLZTION SCHEME DEFAULT UP	POINT DATA REQMT FILE OPTN	POINT DATA SELECTION OPTIONS ESR	POINT DATA SELECTION OPTIONS FLT	BEAM DATA LONG. TOLER	BEAM DATA FILE OPTN	ANTENNA DATA DOWNPATH ANT SAT	DOWNPATH KEYS ESR	DOWNPATH POLAR TYPE	DOWNPATH ASMPT/ SUBSAT	FEEDERLINK ANT FLT	FEEDERLINK KEYS SAT	FEEDERLINK POLAR FLAG	FEEDERLINK AIMPT/ FLAG	RAIN ATTENU CALC FLAG	RAIN ATTENU MAX MRGN DB
TEST0009	2	CTS4	CTS1	P	EBPIT	PFM	2.	P	77DT	77DR	L	S	FSS1	77UR	L	A	R	4.0

(CARD 2 CONTINUED)

TRANSMITTER POWER DEFAULTS: DOWNPATH EIRP/POWER FLAG	DOWNPATH VALUE	DOWNPATH MAX ADJ	FEEDERLINK EIRP/POWER FLAG	FEEDERLINK VALUE	FEEDERLINK MAX ADJ
E	60.	P		32.0	

**********OUTPUT DATA OPTIONS**********

	DET	DET	P3	P2	INFR	MARGIN THRESHOLDS (DB)				PHI
						AGGREGATE		DETAIL		ZERO
AGG	1	2	BIN	GAIN	MTRX	DOWN	UP	DOWN	UP	DEG
								260.	260.	

(CARD 3 CONTINUED)

MAX PHI/ PHIO	SINGLE VICTIM CHANNEL	INHIBIT SAME-SERV INTERFER	HORIZON KM	NOM FRQ OPT	GROUP FLAG	NO. OF DESCR CARDS	NO. OF SERV. AREAS	CARDS PRESENT DOWN	UP

SCENARIO/PLAN INPUT DATA

SCENARIO KEY	CARD TYPE	RARC KEY	RARC PARAMETER OVERRIDES: POINTING TOL E-ANT	POINTING TOL S-ANT (DEG)	ROTATNL TOL E-ANT (DEG)	ROTATNL TOL S-ANT (DB)	DELTA G	RAIN ATTENUA PCT WST MONTH	*** PROTECTION **TEMPLATE*** KEYS DOWN	KEYS FLT	KEYS TOTL	RATIO DATA *** **CO-CHANNEL*** (DB) DOWN	(DB) FLT	(DB) TOTL
TEST000B	1		.000	0.00	0.00	0.00	0.00	0.				0.0	0.0	31.0

SCENARIO KEY	CARD TYPE	CHNLZTION SCHEME DEFAULT DOWN	CHNLZTION SCHEME DEFAULT UP	**POINT DATA*** RQMT FILE OPTN	SELECTION OPTIONS ESR	SELECTION OPTIONS FLT	BEAM DATA LONG. TOLER	BEAM DATA FILE OPTN	ANTENNA DATA ***** DOWNPATH ***** ANT KEYS SAT	ANTENNA DATA ***** DOWNPATH ***** KEYS ESR	ANTENNA DATA ***** DOWNPATH ***** POLAR TYPE	ANTENNA DATA ***** DOWNPATH ***** ASMPT/ SUBSAT	ANTENNA DATA *****FEEDERLINK**** ANT FLT	ANTENNA DATA *****FEEDERLINK**** KEYS SAT	ANTENNA DATA *****FEEDERLINK**** POLAR FLAG	ANTENNA DATA *****FEEDERLINK**** AIMPT/ FLAG	RAIN ATTENU CALC FLAG	RAIN ATTENU MAX MRGN DB
TEST000B	2	CTS4	CTS1	P	EBPIT	PFM	2.00	P	77DT	77DR	L	S	FSS1	77UR	L	A	R	4.0

(CARD 2 CONTINUED)

****TRANSMITTER POWER DEFAULTS**** ****DOWNPATH**** EIRP/POWER FLAG	EIRP/POWER VALUE	MAX ADJ	***FEEDERLINK*** EIRP/POWER FLAG	EIRP/POWER VALUE	MAX ADJ
E	60.00	0.0	P	32.00	0.0

**********OUTPUT DATA OPTIONS**********

SCENARIO KEY	CARD TYPE	DET AGG	DET 1	DET 2	P3 BIN	P2 GAIN	INFR MTRX	MARGIN THRESHOLDS (DB) AGGREGATE DOWN	AGGREGATE UP	DETAIL DOWN	DETAIL UP	PHI ZERO DEG
TEST000B	3	Y	Y	Y	Y	N		100.0	100.0	260.0	260.0	2.0

(CARD 3 CONTINUED)

MAX PHI/ PHIO	SINGLE VICTIM CHANNEL	INHIBIT SAME-SERV INTERFER	HORIZON KM	NOM FRQ OPT	GROUP FLAG	NO. OF DESCR CARDS	NO. OF SERV. AREAS	CARDS PRESENT DOWN	CARDS PRESENT UP
0.0	0	Y	200.000	M	N	8	6	Y	Y

***** ABOVE VALUES REFECT SCENARIO VALUES AFTER BEING OVERRIDDEN BY VALUES FROM CONTROL FILE

SCENARIO DESCRIPTION CARDS

SCENARIO KEY	CARD TYPE	CARD NUM	DESCRIPTION
TEST000B	4	1	*THIS SET HAS FOLLOWING CHARACTERISTICS - NO BLOCKING, RAIN ATTN, *
TEST000B	4	2	* ALL POINTS SPECIFIED, 1 CHANNELIZATION, PROT RATIO *
TEST000B	4	3	*CALCULATED [illegible] PROPS, CAN WITH C/I AND TEMP BEAM CALL *
[illegible]	4	[illegible]	[illegible]

```
TEST0008   4   7 *     -- SAME AS TEST0005 EXCEPT NO BLOCKING --                    *
TEST0008   4   8 *     ---- TEST FOR OVER THE HORIZON CARRIER ----                   *
```

RARC PARAMETER INPUT DATA

TEST3 PARAMETERS

RARC KEY	CARD TYPE	CRNT OPCL FLAG	MIN S-ANT BMWDTH	MAX S-ANT AXRATIO	MIN FL ANT	TOLERANCES POINTING E-ANT	TOLERANCES POINTING S-ANT	TOLERANCES ROTATIONAL E-ANT	TOLERANCES ROTATIONAL S-ANT	DELTA-G TO COEF
TES4	1	Y	0.00	9.99	2.00	0.00	0.00	0.00	0.00	3.78

CHANNELIZATION PARAMETERS

		UPPATH FREQUENCY LOWER (GHZ)	UPPATH FREQUENCY UPPER (GHZ)	UPPATH GUARDBAND LOWER (MHZ)	UPPATH GUARDBAND UPPER (MHZ)	DOWNPATH FREQUENCY LOWER (GHZ)	DOWNPATH FREQUENCY UPPER (GHZ)	DOWNPATH GUARDBAND LOWER (MHZ)	DOWNPATH GUARDBAND UPPER (MHZ)	BAND WIDTH COEF
TES4	2	17.300	17.800	10.00	10.00	12.200	12.700	10.00	10.00	1.80

		RAIN ATTENUATION MAX RAIN MRGN	RAIN ATTENUATION PERCENT WORST MONTH	PROTECTION DATA DOWN RATIO KEY	PROTECTION DATA FLT RATIO KEY	PROTECTION DATA TOTAL RATIO KEY	CO-CHANNEL DOWN PR ZERO	CO-CHANNEL FLT PR ZERO	CO-CHANNEL TOTAL PR ZERO	FLT NOISE CONTRIB	OVER ALL CN	OFFICIAL PARAMETERS
TES4	3	4.0	0.1000	T4DW	T4DW	T4DW	28.0	28.0	28.0	0.00	0.0	NNNNNNNNNNNNNNNN

SCENARIO SERVICE AREA NO. 1

SCENARIO KEY	CD TP	SERVICE AREA KEY	SB CD	BLOCK CODE
TEST0009	5	AHO-RZ-TST	1	CANN

DOWNPATH DATA

BEAM-PTSET KEY U/D	OVERRIDE SERVICE AREA	******* BEAM DATA ******* SAT LONG	PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	AHO-RZ-TST 2	-100.00	0.10	1.00	0.00	01	90.0

SCENARIO DOWNPATH OVERRIDES

			DELTA						SAT	ESR		**TRANSMITTER**		NO.
E-ANT PTTOL	S-ANT PTTOL	G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	ANT KEY	ANT KEY	POL FLAG	EIRP/POWER FLAG	VALUE	MAX ADJ	PNT OVER
TEST0008 5 AHO-RZ-TST 3	.000	0.00	0.00				0.00				F	-102.60	0.0	0

FEEDERLINK DATA

BEAM-PTSET KEY U/D	OVERRIDE SERVICE AREA	******* BEAM DATA ******* SAT LONG	PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	AHO-RZ-TST 4 D	-100.00	0.10	1.00	0.00	01	90.0

SCENARIO FEEDERLINK OVERRIDES

			DELTA						FLT	SAT		**TRANSMITTER**		NO.
E-ANT PTTOL	S-ANT PTTOL	G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	ANT KEY	ANT KEY	POL FLAG	EIRP/POWER FLAG	VALUE	MAX ADJ	PNT OVER
TEST0008 5 AHO-RZ-TST 5	.000	0.00	0.00				0.00	TSUT			C	14.00	0.0	0

SCENARIO SERVICE AREA NO. 2

SCENARIO KEY	CD TY	SERVICE AREA KEY	SB CD	BLOCK CODE
TEST0008	5	CAN-PA-STD	1	CANW

********** DOWNPATH DATA **********

BEAM-PTSET KEY U/D	SERVICE AREA	******* BEAM DATA ******* OVERRIDE LONG	SAT PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	CAN-PA-STD 2	-144.50	0.10	1.00	0.00	01	90.0

**********SCENARIO DOWNPATH OVERRIDES **********

		DELTA						SAT	ESR		**TRANSMITTER**		NO.
E-ANT PTTOL	S-ANT PTTOL	G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	ANT KEY	ANT KEY	POL FLAG	EIRP/POWER FLAG VALUE	MAX ADJ	PNT OVER
TEST0008 5	CAN-PA-STD 3	.000 0.00	0.00				0.00				F -102.60	0.0	0

********** FEEDERLINK DATA **********

BEAM-PTSET KEY U/D	SERVICE AREA	******* BEAM DATA ******* OVERRIDE LONG	SAT PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	CAN-PA-STD 4	-144.50	0.10	1.00	0.00	01	90.0

********** SCENARIO FEEDERLINK OVERRIDES **********

		DELTA						FLT	SAT		**TRANSMITTER**		NO.
E-ANT PTTOL	S-ANT PTTOL	G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	ANT KEY	ANT KEY	POL FLAG	EIRP/POWER FLAG VALUE	MAX ADJ	PNT OVER
TEST0008 5	CAN-PA-STD 5	.000 0.00	0.00				0.00	TSUT			C 14.00	0.0	.0

SCENARIO SERVICE AREA NO. 3

SCENARIO KEY	CD TP	SERVICE AREA KEY	SB CD	BLOCK CODE
TEST0008	5	CAN-PE-STD	1	CANC

********** DOWNPATH DATA **********

BEAM-PTSET KEY U/D	OVERRIDE SERVICE AREA	******* BEAM DATA ******* SAT LONG	PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	CAN-PE-STD 2	-125.00	0.10	1.00	0.00	02	0.0

**********SCENARIO DOWNPATH OVERRIDES **********

		DELTA						SAT	ESR		**TRANSMITTER**		NO.
E-ANT PTTOL	S-ANT PTTOL	G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	ANT KEY	ANT KEY	POL FLAG	EIRP/POWER FLAG	MAX VALUE	ADJ	PNT OVER
TEST0008 5	CAN-PE-STD 3	.100 0.20	0.00				0.00				C	14.00	0.0	0

********** FEEDERLINK DATA **********

BEAM-PTSET KEY U/D	OVERRIDE SERVICE AREA	******* BEAM DATA ******* SAT LONG	PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	CAN-PE-STD 4	-125.00	0.10	1.00	0.00	01	0.0

********** SCENARIO FEEDERLINK OVERRIDES **********

		DELTA						FLT	SAT		**TRANSMITTER**		NO.
E-ANT PTTOL	S-ANT PTTOL	G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	ANT KEY	ANT KEY	POL FLAG	EIRP/POWER FLAG	MAX VALUE	ADJ	PNT OVER
TEST0008 5	CAN-PE-STD 5	.100 0.20	0.00				0.00	CPM8	77UC		C	14.00	0.0	0

SCENARIO SERVICE AREA NO. 4

SCENARIO KEY	CD TP	SERVICE AREA KEY	SB CD	BLOCK CODE
TEST0008	5	CAN-ON-STD	1	CANC

********** DOWNPATH DATA **********

BEAM-PTSET KEY				******* BEAM DATA *******					
		OVERRIDE		SAT	PTNG	ROT	SAT	CHN	POLAR
U/D	SERVICE AREA			LONG	ERR	ERR	LAT	FM	ANGLE
TEST0008	5	CAN-ON-STD	2	-125.00	0.10	1.00	0.00	04	0.0

**********SCENARIO DOWNPATH OVERRIDES **********

				DELTA							SAT	ESR		**TRANSMITTER**		NO.
				E-ANT	S-ANT	G	CHNL	RQMTS	PTSEL	BMLNG	BFSEL	ANT	ANT	POL	EIRP/POWER	MAX	PNT
				PTTOL	PTTOL	DB	KEY	OPTION	OPTION	OPTION	OPTION	KEY	KEY	FLAG	FLAG VALUE	ADJ	OVER
TEST0008	5	CAN-ON-STD	3	.000	0.00	0.00				0.00					P 124.00	0.0	0

********** FEEDERLINK DATA **********

BEAM-PTSET KEY				******* BEAM DATA *******					
		OVERRIDE		SAT	PTNG	ROT	SAT	CHN	POLAR
U/D	SERVICE AREA			LONG	ERR	ERR	LAT	FM	ANGLE
TEST0008	5	CAN-ON-STD	4	D	-125.00	0.10	1.00	0.00	01	0.0

********** SCENARIO FEEDERLINK OVERRIDES **********

				DELTA							FLT	SAT		**TRANSMITTER**		NO.
				E-ANT	S-ANT	G	CHNL	RQMTS	PTSEL	BMLNG	BFSEL	ANT	ANT	POL	EIRP/POWER	MAX	PNT
				PTTOL	PTTOL	DB	KEY	OPTION	OPTION	OPTION	OPTION	KEY	KEY	FLAG	FLAG VALUE	ADJ	OVER
TEST0008	5	CAN-ON-STD	5	.000	0.00	0.00				0.00		TSUT	77UR		C 14.00	0.0	0

SCENARIO SERVICE AREA NO. 5

SCENARIO KEY	TP	SERVICE AREA KEY	SB CD	BLOCK CODE
TEST0008	5	USA-CT-STC	1	

********** DOWNPATH DATA **********

BEAM-PTSET KEY U/D	OVERRIDE SERVICE AREA	******* BEAM DATA ******* SAT LONG	PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	USA-CT-STC 2	-135.00	0.10	1.00	0.00	03	0.0

**********SCENARIO DOWNPATH OVERRIDES **********

												TRANSMITTER		
E-ANT PTTOL	S-ANT PTTOL	DELTA G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	SAT ANT KEY	ESR ANT KEY	POL FLAG	EIRP/POWER FLAG	VALUE	MAX ADJ	NO. PNT OVER
TEST0008 5 USA-CT-STC 3 .000	0.00	0.00				0.00					P	251.00	0.0	0

********** FEEDERLINK DATA **********

BEAM-PTSET KEY U/D	OVERRIDE SERVICE AREA	******* BEAM DATA ******* SAT LONG	PTNG ERR	ROT ERR	SAT LAT	CHN FM	POLAR ANGLE
TEST0008 5	USA-CT-STC 4	-135.00	0.10	1.00	0.00	01	0.0

********** SCENARIO FEEDERLINK OVERRIDES **********

												TRANSMITTER		
E-ANT PTTOL	S-ANT PTTOL	DELTA G DB	CHNL KEY	RQMTS OPTION	PTSEL OPTION	BMLNG OPTION	BFSEL OPTION	FLT ANT KEY	SAT ANT KEY	POL FLAG	EIRP/POWER FLAG	VALUE	MAX ADJ	NO. PNT OVER
TEST0008 5 USA-CT-STC 5 .000	0.00	0.00				0.00					P	30.00	0.0	0

SCENARIO SERVICE AREA NO. 6

SCENARIO KEY	CD TP	SERVICE AREA KEY	SB CD	BLOCK CODE
TEST0008	5	ATN-TS-PNT	1	

********** DOWNPATH DATA **********

BEAM-PTSET KEY				******* BEAM DATA *******					
	OVERRIDE			SAT	PTNG	ROT	SAT	CHN	POLAR
	U/D	SERVICE AREA		LONG	ERR	ERR	LAT	FM	ANGLE
TEST0008	5	ATN-TS-PNT	2	U		-70.00	0.10	1.00	0.00	03	0.0

**********SCENARIO DOWNPATH OVERRIDES **********

			DELTA						SAT	ESR		**TRANSMITTER**		NO.
E-ANT	S-ANT	G	CHNL	RQMTS	PTSEL	BMLNG	BFSEL	ANT	ANT	POL	EIRP/POWER	MAX	PNT
PTTOL	PTTOL	DB	KEY	OPTION	OPTION	OPTION	OPTION	KEY	KEY	FLAG	FLAG	VALUE	ADJ	OVER
TEST0008	5	ATN-TS-PNT	3	.000	0.00	0.00			0.00			P	1.00	0.0	0

********** FEEDERLINK DATA **********

BEAM-PTSET KEY				******* BEAM DATA *******					
	OVERRIDE			SAT	PTNG	ROT	SAT	CHN	POLAR
	U/D	SERVICE AREA		LONG	ERR	ERR	LAT	FM	ANGLE
TEST0008	5	ATN-TS-PNT	4			-70.00	0.10	1.00	0.00	01	0.0

********** SCENARIO FEEDERLINK OVERRIDES **********

			DELTA						FLT	SAT		**TRANSMITTER**		NO.
E-ANT	S-ANT	G	CHNL	RQMTS	PTSEL	BMLNG	BFSEL	ANT	ANT	POL	EIRP/POWER	MAX	PNT
PTTOL	PTTOL	DB	KEY	OPTION	OPTION	OPTION	OPTION	KEY	KEY	FLAG	FLAG	VALUE	ADJ	OVER
TEST0008	5	ATN-TS-PNT	5	.000	0.00	0.00			0.00			P	2.00	0.0	0

CHANNELIZATION INPUT DATA

CHZ KEY	CARD TYPE	UP/ DOWN	LOWEST FREQ (GHZ)	NO. OF CHNLS	CHNL BNDWTH (MHZ)	CHNL SEP. (MHZ)	CH. NOISE BNDW (MHZ)	TOP B-B FRQ (MHZ)	P-P DEV (MHZ)	OFFL FLAG	NO. OF CHML FAMS
CTS1	1	U	17.400	40	10.00	10.00	22.00	2.00	8.00	N	1

	CHNL FAM NUM	CARD NUM	NO. OF CHNLS IN FAM	CHANNELS
CTS1	01	1	8	4 8 12 16 24 28 32 36

CHZ KEY	CARD TYPE	UP/ DOWN	LOWEST FREQ (GHZ)	NO. OF CHNLS	CHNL BNDWTH (MHZ)	CHNL SEP. (MHZ)	CH. NOISE BNDW (MHZ)	TOP B-B FRQ (MHZ)	P-P DEV (MHZ)	OFFL FLAG	NO. OF CHML FAMS
CTS4	1	D	12.400	36	10.00	14.70	22.00	5.00	12.00	N	4

	CHNL FAM NUM	CARD NUM	NO. OF CHNLS IN FAM	CHANNELS
CTS4	01	1	5	1 3 5 7 9
CTS4	02	1	5	2 4 6 8 10
CTS4	03	1	1	2
CTS4	04	1	1	15

PROTECTION RATIO TEMPLATE TABLE INPUT DATA

KEY	CRD NUM	NO. OF SEG	SEGMENT PARAMETERS UPPER LIMIT	END VALUE (DB)	SLOPE (DB)	OFFSET	UPPER LIMIT	END VALUE (DB)	SLOPE (DB)	OFFSET
T4DW	1	5	-0.920	-23.000	71.000	-0.920	-0.274	0.000	35.600	-0.274
T4DW	2		0.274	0.000	0.000	0.000	0.920	0.000	-35.600	0.274
T4DW	3		0.000	-23.000	-71.000	0.920				

POINT SET AND POINT INPUT DATA

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
AHRZ	1	AHO-RZ-TST	D	N	B	2	TEST FOR OVER HORIZON CARRIER

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
AHRZ	1	AHO-RZ-TST	D	N		2	TEST FOR OVER HORIZON CARRIER

	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN
AHRZ 2	1	P	40.00	60.00	0.	B	2	P	40.00	70.00	0.	B						

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
CA4D	1	CAN-ON-STD	D	N	B	3	CANADA ONTARIO AREA. CANADIAN TEST DATA

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
CA4D	1	CAN-ON-STD	D	N		3	CANADA ONTARIO AREA. CANADIAN TEST DATA

	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN
CA4D 2	1	P	70.00	-95.00	0.	B	2	P	70.00	-80.00	0.	B	3	P	60.00	80.00	0.	B

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
CA1D	1	CAN-PA-STD	D	N	B	8	CANADA PACIFIC AREA. CANADIAN TEST DATA

	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN
CA1D 2	1	P	70.00	-141.00	0.	B	2	P	70.00	-120.00	0.	B	3	P	60.00	-120.00	0.	
CA1D 2	4	P	49.00	-114.00	0	B	5	I	70.00	-130.00	2959.	C	6	B	49.00	-120.00	0.	
CA1D 2	7	E	81.00	-145.00	0	D	8	I	70.00	-130.00	0.	B						

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT

		PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN
		NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN
CA3D	2	1	P	56.90	-89.00	0.	B	2	P	52.80	-95.20	0.	B	3	P	49.80	-95.20	0.	B
CA3D	2	4	P	70.00	-106.00	0.	D	5	P	49.80	-95.20	0.	A	6	I	52.00	-100.01	10.	B

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
UCPD	1	USA-CT-STC	D	N	A	2	

		PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN
		NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN
UCPD	2	1	B	41.80	-87.70	0.	A	2	B	48.00	-89.50	0.	B						

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
TSTZ	1	ATN-TS-PNT	U	N	C	1	0 LAT 0 LONG TEST POINT

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
TSTZ	1	ATN-TS-PNT	U	N		1	0 LAT 0 LONG TEST POINT

		PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN
		NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN
TSTZ	2	1	P	0.00	0.00	0.													

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
CA1U	1	CAN-PA-STD	U	N	B	3	CANADIAN PACIFIC FEEDERLINK - CANADIAN TEST DATA

		PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN
		NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN
CA1U	2	1	M	50.00	-130.00	0.	C	2	M	51.00	-126.00	0.	C	3	P	49.00	-120.00	0.	C

PNT KEY	CRD TYP	SERVICE AREA	UP/ DN	OFFL SET	RN ZN	NO. OF PNTS	COMMENT
CA3U	1	CAN-PE-STD	U	N	C	2	CANADIAN PRAIRIE EAST FEEDERLINK TEST DATA

		PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN	PNT	PNT	LOCATION		ELEV.	RN
		NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN	NUM	TYP	LAT.	LONG.	METERS	ZN
CA3U	2	1	P	56.90	-89.00	0.	C	2	P	52.80	-95.20	0.							

UCPU 1 USA-CT-STC U N B 1

	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN	PNT NUM	PNT TYP	LOCATION LAT.	LOCATION LONG.	ELEV. METERS	RN ZN
UCPU 2	1	F	41.80	-87.70	0.	B												

BEAM INPUT DATA

********** BEAM ID **********							ORIENT/REFERENCE ANG.					
*** BEAM KEY ***		SAT	PTNG	ROT	AIMPOINT			ORIENT/		MAJOR	MINOR	OFFL
U/D	SERVICE AREA	LONG.	ERR	ERR	LAT.	LONG.	FLAG	REF. LAT	REF. LNG	AXIS	AXIS	FLAG
D	AHO-RZ -TST	-100.00	0.10	1.00	40.00	-70.00	C	0.00	0.00	0.60	0.60	N
D	CAN-ON -STD	-125.00	0.10	1.00	52.06	-88.60	O	147.98	0.00	3.88	0.77	N
D	CAN-PA -STD	-145.00	0.10	1.00	57.13	-126.32	O	155.81	0.00	3.04	0.95	N
D	CAN-PE -STD	-125.00	0.10	1.00	56.79	-101.61	O	149.71	0.00	2.26	1.08	N
D	USA-CT -STC	-135.00	0.10	1.00	36.40	-98.10	R	26.70	-89.00	4.08	1.74	N
U	ATN-TS -PNT	-70.00	0.10	1.00	0.00	0.00	C	0.00	0.00	0.60	0.60	N
U	CAN-PA -STD	-145.00	0.10	1.00	51.00	-126.00	C	0.00	0.00	0.60	0.60	
U	CAN-PE -STD	-125.00	0.10	1.00	54.00	-92.00	C	0.00	0.00	0.60	0.60	
U	USA-CT -STC	-135.00	0.10	1.00	36.40	-98.10	R	26.70	-89.00	2.91	1.24	N

ANTENNA INPUT DATA

ANT KEY	EARTH/ SPACE	XMIT/ RCV	E-ANT DIAM/ CVRAGE ANG FLAG	VALUE	EAP	FIG OF MERIT/ RCVR FLAG	NOISE T VALUE	GAIN TABLKEY CO	X	OFFL FLAG	
77DR	E	R	D	0.75	0.55	N	1200.00	13	24	N	
77DT	S	T		0.00	0.55		0.00	12	22	N	
77UC	S	R		0.00	0.55	M	15.74	12	22	N	
77UR	S	R		0.00	0.55	N	1500.00	12	22	N	
CPM8	E	T	D	4.00	0.55		0.00	41AA	42AA	N	CPM 42 FEEDERLINK
FSS1	E	T	D	4.50	0.55		0.00	31	23	N	
TSUT	E	T	D	7.00	0.55		0.00	31	23	N	

GAIN TABLE INPUT DATA

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
12	1	1	0	5.	77WARC SATELLITE TRANSMIT COPOLAR

	SEG SEQ	SUB SEQ	LIMIT	EQU TYP	LIMFL	NUM COEFS	COEFF	COEFF	COEFF	COEFF	COEFF	COEFF
12	2	A	A	1.58000	2	Z	3	12.000	0.00000	2.0000		
12	2	B	A	3.16000	1	Z	1	30.000				
12	2	C	A	998.000	3	Z	4	17.500	25.000	1.0000	0.00000	
12	2	D	A	999.000	4	Z	2	0.00000	0.00000			

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
13	1	1	0	6	77 WARC EARTH STATION RECEIVE COPOLAR REGION 2

	SEG SEQ	SUB SEQ	LIMIT	EQU TYP	LIMFL	NUM COEFS	COEFF	COEFF	COEFF	COEFF	COEFF	COEFF
13	2	A	A	0.250000	1	Z	1	0.00000				
13	2	B	A	0.707000	2	Z	3	12.000	0.00000	2.0000		
13	2	C	A	1.26000	3	Z	4	9.0000	20.000	1.0000	0.00000	
13	2	D	A	15.1400	3	Z	4	8.5000	25.000	1.0000	0.00000	
13	2	E	A	999.000	1	Z	1	38.000				

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
22	1	1	0	5	77 WARC SATELLITE TRANSMIT CROSSPOLAR

	SEG SEQ	SUB SEQ	LIMIT	EQU TYP	LIMFL	NUM COEFS	COEFF	COEFF	COEFF	COEFF	COEFF	COEFF
22	2	A	A	0.330000	3	Z	4	40.000	40.000	-1.0000	1.0000	
22	2	B	A	1.67000	1	Z	1	33.000				

22	2	B	A	999.000	4	Z	2	0.00000	0.00000

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
23	1	1	0	4	UPLINKK TRANSMIT CROSSPOLAR ORI

	SEG SEQ	SUB SEQ	LIMIT	EQU TYP	LIMFL	NUM COEFS	COEFF	COEFF	COEFF	COEFF	COEFF	COEFF
23	2	A	A	4.10000	1	Z	1	25.000					
23	2	B	A	174.400	3	Z	4	9.7000	25.000	1.0000	0.00000		
23	2	C	A	999.000	4	Z	2	10.000	0.00000				

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
24	1	1	0	8	77 WARC EARTH STATION RECEIVE CROSSPOLAR REGION 2

	SEG SEQ	SUB SEQ	LIMIT	EQU TYP	LIMFL	NUM COEFS	COEFF	COEFF	COEFF	COEFF	COEFF	COEFF
24	2	A	A	0.250000	1	Z	1	25.000					
24	2	B	A	0.440000	3	Z	4	30.000	40.000	-1.0000	1.0000		
24	2	C	A	1.40000	1	Z	1	20.000					
24	2	D	A	2.00000	3	Z	4	30.000	25.000	1.0000	1.0000		
24	2	E	A	7.24000	1	Z	1	30.000					
24	2	F	A	15.1400	3	Z	4	8.5000	25.000	1.0000	0.00000		
24	2	G	A	999.000	1	Z	1	38.000					

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
31	1	2	0	5	FSS CCIR 1978 PATTERN MAIN LOBE GAUSSIAN COPOLAR

	SEG SEQ	SUB SEQ	LIMIT	EQU TYP	LIMFL	NUM COEFS	COEFF	COEFF	COEFF	COEFF	COEFF	COEFF
31	2	A	A	0.354000	2	P	3	12.000	0.00000	2.0000			
31	2	B	A	0.711000	1	P	1	20.000					
31	2	C	A	47.9000	4	P	2	-32.000	25.000				
31	2	D	A	999.000	4	P	2	10.000	0.00000				

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
41AA	1	4	0	3	CPM-82 UPLINK TRANSIT CO-POLARIZED

	CRD NUM	NO. OF PARAMS	PARAM	PARAM	PARAM	PARAM	PARAM	PARAM	PARAM
41AA	2	1	13	0.5000	-12.00	0.0000	0.6350	36.00	-20.00	36.30
41AA	3	2		45.00	-20.00	-12.60	29.00	-25.00	-10.00	

TBL KEY	CRD TYP	PAT TYP	OPT FLG	NO. OF CARDS	DESCRIPTION
42AA	1	4	0	3	CPM-82 UPLINK TRANSMIT CROSS-POLARIZED

	CRD NUM	NO. OF PARAMS	PARAM	PARAM	PARAM	PARAM	PARAM	PARAM	PARAM
42AA	2	1	13	0.4930	0.0000	-30.00	0.0000	0.0000	0.0000	8.910
42AA	3	2		-999.0	0.0000	0.0000	9.000	-20.00	-10.00	

```
TOTAL NUMBER OF ERRORS =     0

ERRORS BY ERROR LEVEL
LEVEL = 20   COUNT =     0
LEVEL = 21   COUNT =     0
LEVEL = 22   COUNT =     0
LEVEL =  0   COUNT =     0
LEVEL =  0   COUNT =     0
LEVEL =  0   COUNT =     0
LEVEL =  0   COUNT =     0
LEVEL = 97   COUNT =     0
LEVEL = 98   COUNT =     0
LEVEL = 99   COUNT =     0
```

```
CONTROL DATA

 SCENARIO=TEST0008


 P2 CONTROL DATA
    STOP CODE=99
    DEBUG=000000000000000000000000000000000000000000000000000000000000000000000000000000000000

 P3 CONTROL DATA
    STOP CODE=50
    DEBUG=000000000000000000000000000000000000000000000000000000000000000000000000000000000000

 P4 CONTROL DATA
    STOP CODE=50
    DEBUG=101010101010101010101001010101010101010101010010101010101010101000000000000000

 P5 CONTROL DATA
    STOP CODE=50
    DEBUG=101010101010101010101001010101010101010101010010101010101010101000000000000000
```

CONTROL DATA

SCENARIO LEVEL DATA

AIMPOINT/ SUBSAT UP	AIMPOINT/ SUBSAT DOWN	RAIN ATTEN CALC	OUTPUT OPTIONS	MARGIN THRESHOLDS (DB) AGGREGATE DOWN	AGGREGATE UP	DETAIL DOWN	DETAIL UP	PHI ZERO DEG	NDM FRQ OPT	BLOCK FLAG	NO. OF DESCR LINES	NO. OF SERV. AREAS	HORIZON	MAX RAIN MARGIN UP
1	2	2	111100	100.0	100.0	260.0	260.0	2.0	2	0	8	6	200.00	4.00

INHIBIT SAME-SERV INTERFER	SINGLE VICTIM CHANNEL	MAXIMUM PHI/PHIO
1	0	0.00

SCENARIO DESCRIPTION CARDS

```
*THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,      *
*   ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                  *
*CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL        *
*BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                       *
*DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.             *
*USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.      *
*     -- SAME AS TEST0005 EXCEPT NO BLOCKING --                        *
*     ---- TEST FOR OVER THE HORIZON CARRIER ----                      *
```

CONTROL DATA

RARC PARAMETERS

KEY	PCT-WST MONTH	MAX RAIN MARGIN	FEEDERLINK FREQUENCY(GHZ) LOWER	FEEDERLINK FREQUENCY(GHZ) UPPER	FEEDERLINK GUARDBAND(MHZ) LOWER	FEEDERLINK GUARDBAND(MHZ) UPPER	DOWNPATH FREQUENCY(GHZ) LOWER	DOWNPATH FREQUENCY(GHZ) UPPER	DOWNPATH GUARDBAND(MHZ) LOWER	DOWNPATH GUARDBAND(MHZ) UPPER
TES4	0.1	4.0	17.300	17.800	10.00	10.00	12.200	12.700	10.00	10.00

********PROTECTION RATIO******** **** CO-CHANNEL **** UP	DOWN	TOTAL	****INDICES**** UP	DOWN	TOTAL	BNDWDTH COEF	FLT NOISE CONTRIB	OVER ALL CN	FLT MIN ANT	PROT. RATIO KEYS UP	DOWN	TOTL
28.00	28.00	31.00	1	1	1	1.800	0.000	0.00	2.00	T4DW	T4DW	T4DW

CONTROL DATA

SERVICE AREA TABLE

NSERVA= 6

INDEX	ADMIN	AREA	ARTYPE	IBLKCD
1	AHO	RZ	TST	CANW
2	CAN	PA	STD	CANW
3	CAN	PE	STD	CANC
4	CAN	ON	STD	CANC
5	USA	CT	STC	
6	ATN	TS	PNT	

PROTECTION RATIO TEMPLATE AND ENTRY TABLES

LENGTH OF TEMPLATE TABLE= 1 LENGTH OF ENTRY TABLE= 21

KEY	*TMPLT* *TABLE* CRD IDX	POS	NO. OF SEG	*	UPPER LIMIT	END VALUE (DB)	SLOPE (DB)	OFFSET	*	UPPER LIMIT	END VALUE (DB)	SLOPE (DB)	OFFSET
T4DW	1	1	5	*	-0.920	-23.000	71.000	-0.920	*	-0.274	0.000	35.600	-0.274
				*	0.274	0.000	0.000	0.000	*	0.920	0.000	-35.600	0.274
				*	0.000	-23.000	-71.000	0.920					

CONTROL DATA

BEAM TABLE

NUMBER OF BEAMS= 9

INDEX	KEY	AXSMJ	AXSMN	AIMLT	AIMLN	IOARFL	ORAN1	ORAN2
1	DAHORZTST	0.60	0.60	40.00	-70.00	0	0.00	0.00
2	DCANEASTD	3.04	0.95	57.13	-126.32	1	155.81	0.00
3	DCANEASTD	0.60	0.60	51.00	-126.00	0	0.00	0.00
4	DCANEESTD	2.26	1.08	56.79	-101.61	1	149.71	0.00
5	DCANEESTD	0.60	0.60	54.00	-92.00	0	0.00	0.00
6	DCANONSTD	3.88	0.77	52.06	-88.60	1	147.98	0.00
7	DUSACTSTC	4.08	1.74	36.40	-98.10	2	26.70	-89.00
8	DUSACTSTC	2.91	1.24	36.40	-98.10	2	26.70	-89.00
9	DATMTSPNT	0.60	0.60	0.00	0.00	0	0.00	0.00

CONTROL DATA

ANTENNA TABLE

NUMBER OF ANTENNAS= 7

INDEX	KEY	IDCFL	DIACV	IFNFL	TEMGT	EAP	ICGN	IXGN
1	77DR	1	0.75	2	1200.00	0.55	1	2
2	77DT	0	0.00	0	0.00	0.55	3	4
3	TSUT	1	7.00	0	0.00	0.55	7	8
4	77UR	0	0.00	2	1500.00	0.55	3	4
5	CPM8	1	4.00	0	0.00	0.55	5	6
6	77UC	0	0.00	1	15.74	0.55	3	4
7	FSS1	1	4.50	0	0.00	0.55	7	8

GAIN AND GAIN ENTRY TABLES

NGT= 8 LGET= 180

********GAIN TABLE******* I	KGAIN	NGPAT	IGENT	IGCAL	NPARAM/ INOSEG	********GAIN ENTRY TABLE******** PARAM/ IEQTYP	PARAM/ LIMIT*	PARAM/ NCOEFF	PARAM/ COEFF	PARAM/ COEFF	PARAM/ COEFF
1	13	1	24	0	5	77 WARC EARTH STATION RECEIVE COPOLAR REGION 2					
					1	1	-.250000	1	0.000000		
					2	2	-.707000	3	12.0000	0.000000	2.00000
					3	3	-1.26000	4	9.00000	20.0000	1.00000
									0.000000		
					4	3	-15.1400	4	8.50000	25.0000	1.00000
									0.000000		
					5	1	-999.000	1	38.0000		
2	24	1	94	0	7	77 WARC EARTH STATION RECEIVE CROSSPOLAR REGION 2					
					1	1	-.250000	1	25.0000		
					2	3	-.440000	4	30.0000	40.0000	-1.00000
									1.00000		
					3	1	-1.40000	1	20.0000		
					4	3	-2.00000	4	30.0000	25.0000	1.00000
									1.00000		
					5	1	-7.24000	1	30.0000		
					6	3	-15.1400	4	8.50000	25.0000	1.00000
									0.000000		
					7	1	-999.000	1	38.0000		
3	12	1	1	0	4	77WARC SATELLITE TRANSMIT COPOLAR					
					1	2	-1.58000	3	12.0000	0.000000	2.00000
					2	1	-3.16000	1	30.0000		
					3	3	-998.000	4	17.5000	25.0000	1.00000
									0.000000		
					4	4	-999.000	2	0.000000	0.000000	
4	22	1	53	0	4	77 WARC SATELLITE TRANSMIT CROSSPOLAR					
					1	3	-.330000	4	40.0000	40.0000	-1.00000
									1.00000		
					2	1	-1.67000	1	38.0000		
					3	3	-998.000	4	40.0000	40.0000	1.00000
									1.00000		
					4	4	-999.000	2	0.000000	0.000000	
5	41	4	153	0	13	CPM-82 UPLINK TRANSIT (CO-POLARIZED)					
					0.500000	-12.0000	0.000000	0.425000	36.0000	-20.0000	
					36.0000	45.0000	-20.0000	-13.6000	29.0000	-25.0000	
					3.40000						

```
 6  42     4   167     0    13        CPM-82  UPLINK TRANSMIT CROSS-POLARIZED
                                 0.493000    0.000000    -30.0000    0.000000    0.000000    0.000000
                                 8.91000     -999.000    0.000000    0.000000    9.00000     -20.0000
                                 -10.0000

 7 31      2   132     0     4      FSS CCIR 1978 PATTERN MAIN LOBE GAUSSIAN COPOLAR
                                 1      2     0.354000        3       12.0000     0.000000     2.00000

                                 2      1     0.711000        1       20.0000
                                 3      4      47.9000        2      -32.0000     25.0000
                                 4      4      999.000        2       10.0000     0.000000

 8 23      1    77.    0     3      UPLINKK TRANSMIT CROSSPOLAR ORI
                                 1      1     -4.10000        1       25.0000
                                 2      3     -174.400        4       9.70000     25.0000      1.00000
                                                                      0.000000
                                 3      4     -999.000        2       10.0000     0.000000

*  SEGMENT LIMIT IS ABSOLUTE VALUE OF NUMBER,
*   IF NEGATIVE THE LIMIT IS ON PHI/PHI ZERO.
*   IF POSITIVE THE LIMIT IS ON PHI
```

UP AND DOWN TABLE SIZES

PT SETS		POINTS		CHANNNS		CH FAMS		CHANNLS	
UP	DN	UP	DN	UP	DN	UP	DN	UP	DN
5	6	18	22	1	1	1	4	8	12

FEEDERLINK DATA

PATH TABLE

**********IN BINARY FILE**********

I	IDX BM	IDX ANT	CHP FM	F	SAT PWR	PWR ADJ	S A PTL	E A PTL	PL FI	POLAR ANG	DELT G	SATLONG	SAT LAT		******BEAM KEY****** F	T	U/D	SERVICE AREA	PNT ERR	ROT ERR	SANT KEY	CHZ KEY	CH FM
1	1	4	1	4	-102.6	0.0	0.00	.000	2	90.0	3.78	-100.00	0.00	1	2	0	D	AHO-RZ-TST	0.100	1.000	77UR	CTS1	01
2	3	4	1	4	-102.6	0.0	0.00	.000	2	90.0	3.78	-144.50	0.00	1	2	0	U	CAN-PA-STD	0.100	1.000	77UR	CTS1	01
3	5	4	1	2	14.0	0.0	0.20	.100	2	0.0	3.78	-125.00	0.00	1	2	0	U	CAN-PE-STD	0.100	1.000	77UC	CTS1	01
4	6	4	1	3	124.0	0.0	0.00	.000	2	0.0	3.78	-125.00	0.00	1	2	0	D	CAN-ON-STD	0.100	1.000	77UR	CTS1	01
5	8	4	1	3	251.0	0.0	0.00	.000	2	0.0	3.78	-135.00	0.00	1	2	0	U	USA-CT-STC	0.100	1.000	77UR	CTS1	01
6	9	4	1	3	1.0	0.0	0.00	.000	2	0.0	3.78	-70.00	0.00	1	2	0	U	ATN-TS-PNT	0.100	1.000	77UR	CTS1	01

FEEDERLINK DATA

CHANNELIZATION TABLE

INDEX	KEY	FRQL	NCHNZ	CHBW	CHSEP	CHNSBW	TBBFRQ	PPDEV
1	CTS1	17.400	40	10.00	10.00	22.00	2.00	8.00

CHANNEL FAMILY AND CHANNEL TABLES

INDEX	KEY	I1CHN	I9CHN	ICHNZ	CHANNELS (24 PER LINE)
1	CTS101	1	8	1	4 8 12 16 24 28 32 36

FEEDERLINK DATA

POINT SET AND POINT TABLE

ISERVA= 1 IENDP= 2

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
1	40.00	60.00	0.	2	3	2	14.0
2	40.00	70.00	0.	2	3	2	14.0

ISERVA= 2 IENDP= 5

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
3	50.00	-130.00	0.	3	3	2	14.0
4	51.00	-126.00	0.	3	3	2	14.0
5	49.00	-120.00	0.	3	3	2	14.0

ISERVA= 3 IENDP= 7

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
6	56.90	-89.00	0.	3	5	2	14.0
7	52.80	-95.20	0.	3	5	2	14.0

ISERVA= 4 IENDP= 10

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
8	70.00	-95.00	0.	2	3	2	14.0
9	70.00	-80.00	0.	2	3	2	14.0
10	60.00	80.00	0.	2	3	2	14.0

ISERVA= 5 IENDP= 11

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
11	41.80	-87.70	0	2	7	3	30.0

ISERVA= 6 IENDP= 12

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
12	[illegible]	[illegible]	0	1	7	3	2.0

DOWNPATH DATA

PATH TABLE

I	IDX BM	IDX ANT	CHP FM	P F	SAT PWR	PWR ADJ	S A PTL	E A PTL	PL FI	POLAR ANG	DELT G	SATLONG	SAT LAT		******BEAM KEY****** F	T	U/D	SERVICE AREA	PNT ERR	ROT ERR	SANT KEY	CHZ KEY	CH FM
1	1	2	1	4	-102.6	0.0	0.00	.000	2	90.0	3.78	-100.00	0.00	1	2	0	D	AHO-RZ-TST	0.100	1.000	77DT	CTS4	01
2	2	2	1	4	-102.6	0.0	0.00	.000	2	90.0	3.78	-144.50	0.00	1	2	0	D	CAN-PA-STD	0.100	1.000	77DT	CTS4	01
3	4	2	2	2	14.0	0.0	0.20	.100	2	0.0	3.78	-125.00	0.00	1	2	0	D	CAN-PE-STD	0.100	1.000	77DT	CTS4	02
4	6	2	3	3	124.0	0.0	0.00	.000	2	0.0	3.78	-125.00	0.00	1	2	0	D	CAN-ON-STD	0.100	1.000	77DT	CTS4	04
5	7	2	4	3	251.0	0.0	0.00	.000	2	0.0	3.78	-135.00	0.00	1	2	0	D	USA-CT-STC	0.100	1.000	77DT	CTS4	03
6	9	2	4	3	1.0	0.0	0.00	.000	2	0.0	3.78	-70.00	0.00	1	2	0	U	ATN-TS-PNT	0.100	1.000	77DT	CTS4	03

DOWNPATH DATA

CHANNELIZATION TABLE

INDEX	KEY	FRQL	NCHNZ	CHBW	CHSEP	CHNSBW	TBBFRQ	PPDEV
1	CTS4	12.400	36	10.00	14.70	22.00	5.00	12.00

CHANNEL FAMILY AND CHANNEL TABLES

INDEX	KEY	I1CHN	I9CHN	ICHNZ	CHANNELS (24 PER LINE)
1	CTS401	1	5	1	1 3 5 7 9
2	CTS402	6	10	1	2 4 6 8 10
3	CTS404	12	12	1	15
4	CTS403	11	11	1	2

DOWNPATH DATA

POINT SET AND POINT TABLE

ISERVA= 1 IENDP= 2

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
1	40.00	60.00	0.	2	1	0	0.
2	40.00	70.00	0.	2	1	0	0.

ISERVA= 2 IENDP= 10

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
3	70.00	-141.00	0.	2	1	0	0.
4	70.00	-120.00	0.	2	1	0	0.
5	60.00	-120.00	0.	2	1	0	0.
6	49.00	-114.00	0.	2	1	0	0.
7	70.00	-130.00	2989.	3	1	0	0.
8	49.00	-120.00	0.	2	1	0	0.
9	81.00	-145.00	0.	4	1	0	0.
10	70.00	-130.00	0.	2	1	0	0.

ISERVA= 3 IENDP= 16

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
11	56.90	-89.00	0.	2	1	0	0.
12	52.80	-95.20	0.	2	1	0	0.
13	49.80	-95.20	0.	2	1	0	0.
14	70.00	-106.00	0.	4	1	0	0.
15	49.80	-95.20	0.	1	1	0	0.
16	52.00	-100.01	10.	2	1	0	0.

ISERVA= 4 IENDP= 19

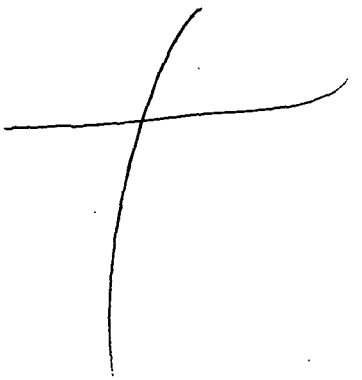
INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
17	70.00	-95.00	0.	2	1	0	0.
18	70.00	-80.00	0.	2	1	0	0.
19	60.00	80.00	0.	2	1	0	0.

ISERVA= 5 IENDP= 21

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
20	41.80	-87.70	0.	1	1	0	0.

ISERVA= 6 IENDP= 22

INDEX	PTLAT	PTLNG	PTELE	IRNZN	IEANT	IEPFL	EPWR
22	0.00	0.00	0.	3	1	0	0.



```
INIT -- I/O UNITS:  INBIN =  7 INBINU=  8 INBIND=  9 IOUTBN=  11 IERUST= 12
IA901=  8 IA902=  9 INBIN2= 14 INBIN48= 15 IOUTB2=  16 IDIAG= 13 IRPT1=  17 IRPT2= 17 IRPT3=  0 IMATRX=  0
              LINES PER PAGE ON REPORTS =  54


 RWPOIN

 ***WARNING- THE    1TH TEST POINT, WHICH BELONGS TO SERVICE AREA AHO-RZ-TST,
              IS OVER THE HORIZON OF ITS SATELLITE.


 RWPOIN

 ***WARNING- THE    2TH TEST POINT, WHICH BELONGS TO SERVICE AREA AHO-RZ-TST,
              IS OVER THE HORIZON OF ITS SATELLITE.


 RWPOIN

 ***WARNING- THE   10TH TEST POINT, WHICH BELONGS TO SERVICE AREA CAN-ON-STD,
              IS OVER THE HORIZON OF ITS SATELLITE.


 RDCHNL

 ***WARNING  CHNLZTN SCHEME  1 FOR IUP=2 VIOLATES THE RARC PARAMETERS.
             LOWEST FREQ=    12.40000     GHZ      NO. OF CHNLS=36       CHNL SEPAR. =  0.1470000E-01GHZ
             CHNL. BNDWDTH=  0.9999998E-02GHZ


 RWPOIN

 ***WARNING  THE    1TH TEST POINT, WHICH BELONGS TO SERVICE AREA AHO-RZ-TST,
              IS OVER THE HORIZON OF ITS SATELLITE.


 RWPOIN

 ***WARNING  THE    2TH TEST POINT, WHICH BELONGS TO SERVICE AREA AHO-RZ-TST,
              IS OVER THE HORIZON OF ITS SATELLITE.
```

ORIGINAL PAGE IS
OF POOR QUALITY

***WARNING: THE 19TH TEST POINT, WHICH BELONGS TO SERVICE AREA CAN-ON-STD,
IS OVER THE HORIZON OF ITS SATELLITE.

```
INIT -- I/O UNITS  INBIN =  7 INBINU=  8 INBIND=  9 IOUTBN=  11 IERUNT= 12
IAGO1=  8 IAGO2=  9 INBIN2= 15 INBIN3= 15 IOUTB2=  14 IDIAG= 13 IRPT1=  17 IRPT2= 16 IRPT3= 12 IMATRX= 14
            LINES PER PAGE ON REPORTS =  60
```

ORIGINAL PAGE IS
OF POOR QUALITY

```
*****************************************************************************************
*                                                                                       *
*                                  SCENARIO DESCRIPTION                                 *
*                                                                                       *
*    THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,                   *
*       ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                               *
*    CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL                     *
*    BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                                    *
*    DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.                          *
*    USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.                   *
*        -- SAME AS TEST0005 EXCEPT NO BLOCKING --                                      *
*        ---- TEST FOR OVER THE HORIZON CARRIER ----                                   *
*                                                                                       *
*                                                                                       *
*****************************************************************************************
```

DETAIL REPORT # 1 FOR TEST0008 UP MAX C/I = 260.00 PAGE 1

* SERVICE AREA * INTERFERED	INTERFERING	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC'D POWER DBW	****** GND-CO DB	ANTENNA GND-X DB	GAINS SAT-CO DB	SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W
AHORZTST	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER										
	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER										
	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER										
	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER										
	CANPASTD	-100.0	50.0	-130.0	-27.04	-173.83	-214.16	-10.00	-10.00	4.76	0.00	-3.99	N NN NN	CO	-1.02
	CANPASTD	-100.0	51.0	-126.0	-22.11	-179.26	-219.08	-10.00	-10.00	5.42	0.00	-3.48	N NN NN	CO	-6.47
	CANPASTD	-100.0	49.0	-120.0	-44.48	-157.58	-196.72	-10.00	-10.00	6.28	0.00	-2.80	N NN NN	CO	15.14
	CANPESTD	-100.0	56.9	-89.0	-45.90	-161.07	-195.29	-6.67	-10.00	12.98	0.00	5.45	N NN NN	X	8.44
	CANPESTD	-100.0	52.8	-95.2	-44.44	-161.92	-196.76	-6.81	-10.00	12.00	0.00	4.68	N NN NN	X	7.63
	CANONSTD	-100.0	70.0	-95.0	-48.22	-158.26	-192.98	-3.37	-4.51	10.11	0.00	8.25	N NN NN	X	8.24
	CANONSTD	-100.0	70.0	-80.0	-49.41	-158.44	-191.79	-3.30	-4.44	11.92	0.00	9.69	N NN NN	X	8.02
	CANONSTD	-100.0	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	USACTSTC	-100.0	41.8	-87.7	-57.68	-155.35	-183.52	-7.59	-7.77	17.21	0.00	10.59	N NN NN	X	14.77
	AINTSPNT	-100.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		3.01
CANPASTD	CANPASTD	-144.5	50.0	-130.0	14.00	-107.33	-109.41	59.60	34.60	44.25	16.81	103.85	CARRIER	CO	-1.02
	CANPASTD	-144.5	51.0	-126.0	14.00	-112.88	-109.41	59.60	34.60	49.81	9.81	109.41	CARRIER	CO	-6.47
	CANPASTD	-144.5	49.0	-120.0	14.00	-91.42	-109.41	59.60	34.60	28.34	16.81	87.94	CARRIER	CO	15.14
	AHORZTST	-144.5	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	AHORZTST	-144.5	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	CANPASTD	-144.5	50.0	-130.0	-3.20	-104.13	-106.22	59.60	34.60	44.25	16.81	103.85	N NN NN	CO	-1.02
	CANPASTD	-144.5	51.0	-126.0	-3.27	-109.61	-106.14	59.60	34.60	49.81	9.81	109.41	N NN NN	CO	-6.47
	CANPASTD	-144.5	49.0	-120.0	-3.41	-88.01	-106.01	59.60	34.60	28.34	16.81	87.94	N NN NN	CO	15.14
	CANPESTD	-144.5	56.9	-89.0	82.38	-158.47	-191.80	-3.74	-10.00	17.08	0.00	9.28	N NN NN	X	8.44
	CANPESTD	-144.5	52.8	-95.2	83.57	-159.31	-192.98	-3.89	-10.00	16.48	0.00	8.78	N NN NN	X	7.63
	CANONSTD	-144.5	70.0	-95.0	71.35	-155.61	-180.76	-0.56	-1.70	19.81	9.22	20.64	N NN NN	X	8.24
	CANONSTD	-144.5	70.0	-80.0	72.36	-195.82	-181.78	-0.44	-1.58	19.81	5.43	19.94	N NN NN	X	8.02
	CANONSTD	-144.5	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	USACTSTC	-144.5	41.8	-87.7	65.68	-141.32	-175.09	6.94	6.76	10.41	0.00	19.51	N NN NN	X	14.77
	AINTSPNT	-144.5	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		3.01
CANPESTD	CANPESTD	-125.0	56.9	-89.0	14.00	-103.93	-107.11	54.62	24.74	43.16	16.81	97.78	CARRIER	CO	8.44
	CANPESTD	-125.0	52.8	-95.2	14.00	-104.47	-107.11	54.62	24.74	43.70	16.81	98.32	CARRIER	CO	7.63
	AHORZTST	-125.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	AHORZTST	-125.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	CANPASTD	-125.0	50.0	-130.0	90.75	-164.96	-197.85	-1.26	-2.40	12.51	0.00	12.19	N NN NN	X	-1.02
	CANPASTD	-125.0	51.0	-126.0	94.95	-170.38	-202.05	-1.22	-2.36	14.04	0.00	13.45	N NN NN	X	-6.47
	CANPASTD	-125.0	49.0	-120.0	71.07	-148.76	-178.17	-1.24	-2.38	16.73	0.00	15.69	N NN NN	X	15.14
	CANPESTD	-125.0	56.9	-89.0	-4.00	-99.93	-103.11	54.62	24.74	43.16	16.81	97.78	N NN NN	CO	8.44
	CANPESTD	-125.0	52.8	-95.2	-3.86	-100.60	-103.24	54.62	24.74	43.70	16.81	98.32	N NN NN	CO	7.63
	CANONSTD	-125.0	70.0	-95.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		8.24
	CANONSTD	-125.0	70.0	-80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		8.02
	CANONSTD	-125.0	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	USACTSTC	-125.0	41.8	-87.7	61.17	-141.79	-168.27	6.19	6.02	19.81	0.00	26.05	N NN NN	CO	14.77
	AINTSPNT	-125.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		3.01
CANONSTD	CANONSTD	-129.0	70.0	-95.0	14.00	-98.99	-109.41	59.60	34.60	35.92	7.62	95.51	CARRIER	CO	8.24
	CANONSTD	-129.0	70.0	-80.0	14.00	-99.65	-109.41	59.60	34.60	36.58	7.62	96.17	CARRIER	CO	8.02
	CANONSTD				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER										
	AHORZTST	-129.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	AHORZTST	-129.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
	CANPASTD	-129.0	50.0	-130.0	-48.67	-164.96	-197.85	-1.26	-2.40	12.51	0.00	10.65	N NN NN	X	-1.02
	CANPASTD	-129.0	51.0	-126.0	-49.33	-170.38	-214.73	-1.22	-2.36	14.04	0.00	10.77	N NN NN	X	-6.47

* SERVICE AREA * INTERFERED INTERFERER	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC'D POWER DBW	ANTENNA GAINS ****** GND-CO DB	GND-X DB	SAT-CO DB	SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W
CARPASTD	-125.0	49.0	-120.0	-64.95	-148.76	-183.11	-1.24	-2.38	10.62	0.00	10.75	N NN NN	X	15.14
CARPESTD	-125.0	56.9	-89.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		8.44
CARPESTD	-125.0	52.8	-95.2	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		7.63
CARUNSTD	-125.0	70.0	-95.0	-142.28	-95.36	-105.78	59.60	34.60	35.92	7.62	95.51	N NN NN	CO	8.24
CARUNSTD	-125.0	70.0	-80.0	-142.65	-95.65	-105.41	59.60	34.60	36.58	7.62	96.17	N NN NN	CO	8.02
CARUNSTD				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER										
ATNTSPNT	-125.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		3.01
USACTSTC	-135.0	41.8	-87.7	15.40	-96.15	-108.01	55.76	30.76	34.48	6.80	90.24	CARRIER	CO	14.77
ARBRZTST	-135.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
ARBRZTST	-135.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
CARPASTD	-135.0	50.0	-130.0	84.09	-157.14	-192.10	6.56	5.42	9.80	0.00	17.95	N NN NN	X	-1.02
CARPASTD	-135.0	51.0	-126.0	88.78	-162.57	-196.79	6.60	5.46	9.80	2.45	18.72	N NN NN	X	-6.47
CARPASTD	-135.0	49.0	-120.0	63.55	-140.96	-171.56	6.59	5.46	13.03	6.80	22.33	N NN NN	X	15.14
CARPESTD	-135.0	56.9	-89.0	63.12	-151.17	-171.13	3.47	-10.00	26.38	6.80	29.85	N NN NN	CO	8.44
CARPESTD	-135.0	52.8	-95.2	60.06	-152.00	-168.07	3.31	-10.00	30.28	6.80	33.59	N NN NN	CO	7.63
USACTSTC	-135.0	41.8	-87.7	-3.80	-92.35	-104.21	55.76	30.76	34.48	6.80	90.24	N NN NN	CO	14.77
ATNTSPNT	-135.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		3.01
ATNTSPNT	-70.0	0.0	0.0	18.53	-108.36	-104.89	55.76	30.76	49.81	9.81	105.57	CARRIER	CO	3.01
ARBRZTST	-70.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
ARBRZTST	-70.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
CARPASTD	-70.0	50.0	-130.0	109.61	-174.18	-214.50	-10.00	-10.00	0.00	0.00	-3.98	N NN NN	X	-1.02
CARPASTD	-70.0	51.0	-126.0	115.01	-179.58	-219.90	-10.00	-10.00	0.00	0.00	-3.98	N NN NN	X	-6.47
CARPASTD	-70.0	49.0	-120.0	93.31	-157.87	-198.19	-10.00	-10.00	0.00	0.00	-3.98	N NN NN	X	15.14
CARPESTD	-70.0	56.9	-89.0	102.88	-164.43	-207.76	-10.00	-10.00	0.00	0.00	-6.99	N NN NN	CO	8.44
CARPESTD	-70.0	52.8	-95.2	103.63	-165.19	-208.52	-10.00	-10.00	0.00	0.00	-6.99	N NN NN	CO	7.63
CARUNSTD	-70.0	70.0	-95.0	103.38	-164.93	-208.26	-10.00	-10.00	0.00	0.00	-6.99	N NN NN	CO	8.24
CARUNSTD	-70.0	70.0	-80.0	103.56	-165.11	-208.44	-10.00	-10.00	0.00	0.00	-6.99	N NN NN	CO	8.02
CARUNSTD	-70.0	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0
USACTSTC	-70.0	41.8	-87.7	96.24	-157.79	-201.12	-10.00	-10.00	0.00	0.00	-6.99	N NN NN	CO	14.77
ATNTSPNT	-70.0	0.0	0.0	-4.00	-104.36	-100.89	55.76	30.76	49.81	9.81	105.57	N NN NN	CO	3.01

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*                                                                           *
*                        SCENARIO DESCRIPTION                               *
*                                                                           *
*   THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,        *
*      ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                    *
*   CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL          *
*   BY ID , NOM FREQ=1.  SOME CARRIERS OVER HORIZON                         *
*   DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.               *
*   USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.        *
*       -- SAME AS TEST0005 EXCEPT NO BLOCKING --                           *
*       ---- TEST FOR OVER THE HORIZON CARRIER ----                         *
*                                                                           *
*                                                                           *
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DETAIL REPORT # 1 FOR TESTGGOB DOWN — MAX C/I = 260.00 — PAGE 1

* SERVICE AREA * INTFERED	INTFRING	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC'D POWER DBW	****** GND-CO DB	ANTENNA GND-X DB	GAINS SAT-CO DB	******* SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W	TOT C/N DB
AHORZTST	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER											
	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER											
	CANPASTD	-144.5	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.60	
	CANPESTD	-125.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		26.45	
	CANONSTD	-125.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		24.00	
	ATNTSPNT	-70.0	40.0	60.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
AHORZTST	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER											
	AHORZTST				RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER											
	CANPASTD	-144.5	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.60	
	CANPESTD	-125.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		26.45	
	CANONSTD	-125.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		24.00	
	ATNTSPNT	-70.0	40.0	70.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
CANPASTD	CANPASTD	-144.5	70.0	-141.0	16.27	-101.97	-108.11	37.22	12.22	36.82	7.77	74.04	CARRIER	CO	25.60	11.9
	AHORZTST	-100.0	70.0	-141.0	194.31	-259.28	-302.42	-0.78	-0.78	5.89	0.00	6.11	N NN NN	CO	=100.0	
	CANPASTD	-144.5	70.0	-141.0	0.00	-101.97	-108.11	37.22	12.22	36.82	7.77	74.04	N NN NN	CO	25.60	
	CANPESTD	-125.0	70.0	-141.0	51.52	-125.27	-159.63	4.96	4.96	13.02	8.50	22.03	N NN NN	X	26.45	
	CANONSTD	-125.0	70.0	-141.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	70.0	-141.0	55.18	-133.77	-163.29	12.76	7.22	6.86	2.43	20.67	N NN NN	X	24.00	
	ATNTSPNT	-70.0	70.0	-141.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
CANPASTD	CANPASTD	-144.5	70.0	-120.0	15.98	-102.26	-108.40	37.22	12.22	36.76	7.77	73.98	CARRIER	CO	25.60	11.8
	AHORZTST	-100.0	70.0	-120.0	192.08	-257.05	-300.48	-0.78	-0.78	7.48	0.00	7.42	N NN NN	CO	=100.0	
	CANPASTD	-144.5	70.0	-120.0	0.00	-102.26	-108.40	37.22	12.22	36.76	7.77	73.98	N NN NN	CO	25.60	
	CANPESTD	-125.0	70.0	-120.0	35.17	-105.70	-143.57	4.98	4.98	32.49	8.50	38.00	N NN NN	X	26.45	
	CANONSTD	-125.0	70.0	-120.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	70.0	-120.0	49.47	-125.29	-157.87	12.80	7.22	15.42	3.86	26.18	N NN NN	X	24.00	
	ATNTSPNT	-70.0	70.0	-120.0	95.88	-166.19	-204.28	-0.78	-0.78	0.00	0.00	5.24	N NN NN	X	0.00	
CANPASTD	CANPASTD	-144.5	60.0	-120.0	18.93	-99.31	-105.46	37.22	12.22	39.33	7.77	76.55	CARRIER	CO	25.60	12.7
	AHORZTST	-100.0	60.0	-120.0	195.17	-257.29	-300.63	-0.78	-0.78	6.88	0.00	6.91	N NN NN	CO	=100.0	
	CANPASTD	-144.5	60.0	-120.0	0.00	-99.31	-105.46	37.22	12.22	39.33	7.77	76.55	N NN NN	CO	25.60	
	CANPESTD	-125.0	60.0	-120.0	37.73	-105.02	-143.18	4.70	4.70	32.77	8.50	37.98	N NN NN	X	26.45	
	CANONSTD	-125.0	60.0	-120.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	60.0	-120.0	48.82	-120.38	-154.28	12.53	7.22	19.92	3.86	29.35	N NN NN	X	24.00	
	ATNTSPNT	-70.0	60.0	-120.0	97.99	-165.36	-203.45	-0.78	-0.78	0.00	0.00	5.24	N NN NN	X	0.00	
CANPASTD	CANPASTD	-144.5	49.0	-114.0	15.65	-102.59	-108.73	37.22	12.22	35.94	7.77	73.16	CARRIER	CO	25.60	11.7
	AHORZTST	-100.0	49.0	-114.0	191.09	-256.39	-299.82	-0.78	-0.78	7.45	0.00	7.39	N NN NN	CO	=100.0	
	CANPASTD	-144.5	49.0	-114.0	0.00	-102.59	-108.73	37.22	12.22	35.94	7.77	73.16	N NN NN	CO	25.60	
	CANPESTD	-125.0	49.0	-114.0	33.26	-103.52	-141.99	4.46	4.46	33.99	8.50	38.90	N NN NN	X	26.45	
	CANONSTD	-125.0	49.0	-114.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	49.0	-114.0	37.98	-111.46	-146.71	12.31	7.22	25.62	3.86	36.70	N NN NN	X	24.00	
	ATNTSPNT	-70.0	49.0	-114.0	94.05	-164.69	-202.78	-0.78	-0.78	0.00	0.00	5.24	N NN NN	X	0.00	
CANPASTD	CANPASTD	-144.5	70.0	-130.0	18.29	-99.95	-106.09	37.22	12.22	37.81	7.77	75.03	CARRIER	CO	25.60	12.6
	AHORZTST	-100.0	70.0	-130.0	193.96	-256.76	-300.06	-0.78	-0.78	6.65	0.00	6.72	N NN NN	CO	=100.0	
	CANPASTD	-144.5	70.0	-130.0	0.00	-99.95	-106.09	37.22	12.22	37.81	7.77	75.03	N NN NN	CO	25.60	
	CANPESTD	-125.0	70.0	-130.0	43.15	-112.05	-149.24	4.96	4.96	34.85	8.50	41.03	N NN NN	X	26.45	
	CANONSTD	-125.0	70.0	-130.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	

* SERVICE AREA * INTFERED	INTFRING	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC'D POWER DBW.	****** GND-CO DB	ANTENNA GND-X DB	GAINS SAT-CO DB	******* SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W	TOT C/N DB
	USACTSTC	-135.0	70.0	-130.0	53.88	-129.82	-159.97	12.77	7.22	9.53	3.86	22.71	N NN NN	X	24.00	
	ATNTSPNT	-70.0	70.0	-130.0	95.58	-163.58	-201.68	-0.78	-0.78	0.00	0.00	5.24	N NN NN	X	0.00	
CANPASTD	CANPASTD	-144.5	49.0	-120.0	17.44	-100.80	-106.95	37.22	12.22	37.59	7.77	74.81	CARRIER	CO	25.60	12.3
	AHORZTST	-100.0	49.0	-120.0	193.92	-257.64	-300.87	-0.78	-0.78	6.28	0.00	6.42	N NN NN	CO	=100.0	
	CANPASTD	-144.5	49.0	-120.0	0.00	-100.80	-106.95	37.22	12.22	37.59	7.77	74.81	N NN NN	CO	25.60	
	CANPESTD	-125.0	49.0	-120.0	44.11	-113.43	-151.05	4.41	4.41	24.05	8.50	29.81	N NN NN	X	26.45	
	CANONSTD	-125.0	49.0	-120.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	49.0	-120.0	44.39	-116.75	-151.34	12.25	7.22	23.25	3.86	31.99	N NN NN	X	24.00	
	ATNTSPNT	-70.0	49.0	-120.0	96.12	-164.98	-203.07	-0.78	-0.78	0.00	0.00	5.24	N NN NN	X	0.00	
CANPASTD	CANPASTD	-144.5	81.0	-145.0	15.64	-102.60	-108.74	37.22	12.22	35.18	7.77	72.40	CARRIER	CO	25.60	11.7
	AHORZTST	-100.0	81.0	-145.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0	
	CANPASTD	-144.5	81.0	-145.0	0.00	-102.60	-108.74	37.22	12.22	35.18	7.77	72.40	N NN NN	CO	25.60	
	CANPESTD	-125.0	81.0	-145.0	42.76	-115.10	-151.50	5.28	5.28	21.85	8.50	28.82	N NN NN	X	26.45	
	CANONSTD	-125.0	81.0	-145.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	81.0	-145.0	52.61	-132.53	-161.35	13.08	7.22	6.86	3.38	21.37	N NN NN	X	24.00	
	ATNTSPNT	-70.0	81.0	-145.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
CANPASTD	CANPASTD	-144.5	70.0	-130.0	17.19	-101.05	-107.19	37.22	12.22	37.81	7.77	75.03	CARRIER	CO	25.60	12.3
	AHORZTST	-100.0	70.0	-130.0	194.20	-258.10	-301.39	-0.78	-0.78	6.65	0.00	6.72	N NN NN	CO	=100.0	
	CANPASTD	-144.5	70.0	-130.0	0.00	-101.05	-107.19	37.22	12.22	37.81	7.77	75.03	N NN NN	CO	25.60	
	CANPESTD	-125.0	70.0	-130.0	43.34	-113.35	-150.53	4.96	4.96	24.85	8.50	31.03	N NN NN	X	26.45	
	CANONSTD	-125.0	70.0	-130.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	70.0	-130.0	54.06	-131.10	-161.25	12.77	7.22	9.53	3.86	22.71	N NN NN	X	24.00	
	ATNTSPNT	-70.0	70.0	-130.0	98.76	-167.87	-205.95	-0.78	-0.78	0.00	0.00	5.25	N NN NN	X	0.00	
CANPESTD	CANPESTD	-125.0	56.9	-89.0	15.27	-102.97	-109.11	37.23	12.23	35.21	8.50	72.44	CARRIER	CO	26.45	11.5
	AHORZTST	-100.0	56.9	-89.0	181.44	-251.02	-290.56	2.07	2.07	12.98	0.00	16.80	N NN NN	X	=100.0	
	CANPASTD	-144.5	56.9	-89.0	45.56	-117.89	-154.67	5.02	5.02	21.91	7.77	28.50	N NN NN	X	25.60	
	CANPESTD	-125.0	56.9	-89.0	0.00	-102.97	-109.11	37.23	12.23	35.21	8.50	72.44	N NN NN	CO	26.45	
	CANONSTD	-125.0	56.9	-89.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	56.9	-89.0	32.86	-110.97	-141.97	12.33	7.23	30.04	3.86	42.37	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	56.9	-89.0	96.23	-164.25	-205.34	-0.77	-0.77	0.00	0.00	2.24	N NN NN	CO	0.00	
CANPESTD	CANPESTD	-125.0	52.8	-95.2	18.41	-99.83	-105.97	37.23	12.23	38.07	8.50	75.30	CARRIER	CO	26.45	12.6
	AHORZTST	-100.0	52.8	-95.2	185.39	-251.87	-291.37	1.92	1.92	12.60	0.00	15.86	N NN NN	X	=100.0	
	CANPASTD	-144.5	52.8	-95.2	46.31	-114.99	-152.28	4.87	4.87	24.30	7.77	30.38	N NN NN	X	25.60	
	CANPESTD	-125.0	52.8	-95.2	0.00	-99.83	-105.97	37.23	12.23	38.07	8.50	75.30	N NN NN	CO	26.45	
	CANONSTD	-125.0	52.8	-95.2	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	52.8	-95.2	33.80	-108.61	-139.77	12.17	7.23	32.02	3.86	44.19	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	52.8	-95.2	99.36	-164.24	-205.33	-0.77	-0.77	0.00	0.00	2.24	N NN NN	CO	0.00	
CANPESTD	CANPESTD	-125.0	49.8	-95.2	16.43	-101.81	-107.95	37.23	12.23	36.01	8.50	73.24	CARRIER	CO	26.45	12.0
	AHORZTST	-100.0	49.8	-95.2	183.10	-251.39	-291.05	1.84	1.84	12.40	0.00	16.11	N NN NN	X	=100.0	
	CANPASTD	-144.5	49.8	-95.2	45.62	-116.43	-153.57	4.81	4.81	23.81	7.77	29.04	N NN NN	X	25.60	
	CANPESTD	-125.0	49.8	-95.2	0.00	-101.81	-107.95	37.23	12.23	36.01	8.50	73.24	N NN NN	CO	26.45	
	CANONSTD	-125.0	49.8	-95.2	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	49.8	-95.2	30.55	-107.27	-138.50	12.10	7.23	33.58	3.86	45.32	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	49.8	-95.2	97.00	-164.16	-205.25	-0.77	-0.77	0.00	0.00	2.24	N NN NN	CO	0.00	
CANPESTD	CANPESTD	-125.0	70.0	-130.0	14.00	-104.24	-110.38	37.23	12.23	35.29	8.50	72.53	CARRIER	CO	26.45	10.9
	AHORZTST	-100.0	70.0	-130.0	194.40	-256.45	-294.79	2.36	2.36	9.07	0.00	12.20	N NN NN	X	=100.0	
	CANPASTD	-144.5	70.0	-130.0	34.73	-107.35	-145.12	5.19	5.19	32.41	7.77	38.64	N NN NN	X	25.60	

* SERVICE AREA * INTFERED	INTFRING	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC'D POWER DBW	****** GND-CO DB	ANTENNA GND-X DB	GAINS SAT-CO DB	******* SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W	TOT C/N DB
	CANPESTD	-125.0	70.0	-106.0	0.00	-104.24	-110.38	37.23	12.23	35.29	8.50	72.52	N NN NN	CO	26.45	
	CANONSTD	-125.0	70.0	-106.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	70.0	-106.0	41.78	-121.35	-152.16	12.50	7.23	20.97	3.86	33.45	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	70.0	-106.0	97.43	-166.72	-207.81	-0.77	-0.77	0.00	0.00	2.25	N NN NN	CO	0.00	
CANPESTD	CANPESTD	-125.0	49.8	-95.2	17.00	-101.24	-107.39	37.23	12.23	36.01	8.50	73.24	CARRIER	CO	26.45	12.2
	AHORZTST	-100.0	49.8	-95.2	183.23	-250.96	-290.62	1.84	1.84	12.40	0.00	16.11	N NN NN	X	=100.0	
	CANPASTD	-144.5	49.8	-95.2	45.48	-115.73	-152.87	4.81	4.81	22.81	7.77	29.03	N NN NN	X	25.60	
	CANPESTD	-125.0	49.8	-95.2	0.00	-101.24	-107.39	37.23	12.23	36.01	8.50	73.24	N NN NN	CO	26.45	
	CANONSTD	-125.0	49.8	-95.2	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	49.8	-95.2	30.48	-106.64	-137.86	12.10	7.23	33.28	3.86	45.38	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	49.8	-95.2	97.33	-163.62	-204.71	-0.77	-0.77	0.00	0.00	2.24	N NN NN	CO	0.00	
CANPESTD	CANPESTD	-125.0	52.0	-100.0	19.97	-98.27	-104.41	37.23	12.23	39.50	8.50	76.73	CARRIER	CO	26.45	13.0
	AHORZTST	-100.0	52.0	-100.0	187.95	-253.08	-292.37	1.87	1.87	10.75	0.00	14.83	N NN NN	X	=100.0	
	CANPASTD	-144.5	52.0	-100.0	44.63	-111.30	-149.04	4.79	4.79	27.74	7.77	33.36	N NN NN	X	25.60	
	CANPESTD	-125.0	52.0	-100.0	0.00	-98.27	-104.41	37.23	12.23	39.50	8.50	76.73	N NN NN	CO	26.45	
	CANONSTD	-125.0	52.0	-100.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	52.0	-100.0	34.99	-108.16	-139.40	12.09	7.23	32.28	3.86	44.38	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	52.0	-100.0	100.99	-164.31	-205.40	-0.77	-0.77	0.00	0.00	2.24	N NN NN	CO	0.00	
CANONSTD	CANONSTD	-125.0	70.0	-95.0	10.03	-108.21	-114.36	37.32	12.32	35.92	7.62	73.24	CARRIER	CO	20.93	-124.6
	AHORZTST	-100.0	70.0	-95.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0	
	CANPASTD	-144.5	70.0	-95.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.60	
	CANPESTD	-125.0	70.0	-95.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		26.45	
	CANONSTD	-125.0	70.0	-95.0	0.00	-108.21	-114.36	37.32	12.32	35.92	7.62	73.24	N NN NN	CO	20.93	
	ATNTSPNT	-70.0	70.0	-95.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
CANONSTD	CANONSTD	-125.0	70.0	-80.0	9.94	-108.30	-114.44	37.32	12.32	36.58	7.62	73.90	CARRIER	CO	20.93	-124.6
	AHORZTST	-100.0	70.0	-80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0	
	CANPASTD	-144.5	70.0	-80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.60	
	CANPESTD	-125.0	70.0	-80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		26.45	
	CANONSTD	-125.0	70.0	-80.0	0.00	-108.30	-114.44	37.32	12.32	36.58	7.62	73.90	N NN NN	CO	20.93	
	ATNTSPNT	-70.0	70.0	-80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
CANONSTD	CANONSTD	RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER														
	AHORZTST	-100.0	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0	
	CANPASTD	-144.5	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.60	
	CANPESTD	-125.0	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		26.45	
	CANONSTD	RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER														
	ATNTSPNT	-70.0	60.0	80.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		0.00	
USACTSTC	USACTSTC	-135.0	41.8	-93.7	12.41	-105.83	-111.97	37.19	12.19	34.16	3.86	71.35	CARRIER	CO	24.00	10.6
	AHORZTST	-100.0	41.8	-93.7	177.12	-246.04	-289.09	-0.81	-0.81	17.21	0.00	17.53	N NN NN	X	=100.0	
	CANPASTD	-144.5	41.8	-93.7	44.90	-128.01	-156.87	12.60	7.19	16.77	7.77	25.27	N NN NN	X	25.60	
	CANPESTD	-125.0	41.8	-93.7	33.77	-114.28	-145.74	11.02	7.19	22.98	8.50	34.89	N NN NN	CO	26.45	
	USACTSTC	-135.0	41.8	-93.7	0.00	-105.83	-111.97	37.19	12.19	34.16	3.86	71.35	N NN NN	CO	24.00	
	ATNTSPNT	-70.0	41.8	-93.7	92.53	-163.36	-204.50	-0.81	-0.81	0.00	0.00	2.20	N NN NN	CO	0.00	
USACTSTC	USACTSTC	-135.0	40.0	-95.5	10.62	-107.62	-113.76	37.19	12.19	33.11	3.86	70.30	CARRIER	CO	24.00	9.3
	AHORZTST	-100.0	40.0	-95.5	179.92	-248.95	-291.68	-0.81	-0.81	14.84	0.00	15.47	N NN NN	X	=100.0	
	CANPASTD	-144.5	40.0	-95.5	40.72	-127.72	-154.48	12.60	7.19	16.05	7.77	25.43	N NN NN	X	25.60	
	CANPESTD	-125.0	40.0	-95.5	31.89	-104.21	-135.65	11.02	7.19	22.72	8.50	34.45	N NN NN	CO	26.45	
	USACTSTC	-135.0	40.0	-95.5	0.00	-107.62	-113.76	37.19	12.19	33.11	3.86	70.30	N NN NN	CO	24.00	

* SERVICE AREA * INTERFERING	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC'D POWER DBW	****** GND-CO DB	ANTENNA GND-X DB	GAINS SAT-CO DB	******* SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W	TOT C/N DB
A[illegible]	-70.0	48.0	-97.5	91.40	-164.02	-205.16	-0.81	-0.81	0.00	0.00	2.20	I NN NN	CO	0.00	
ATMOSPHERE A[illegible]	-70.0	0.0	0.0	2.13	-116.11	-122.25	37.19	12.19	49.81	9.81	87.00	CARRIER	CO	0.00	2.0
A[illegible]-E	-100.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0	
C[illegible]	-144.9	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		38.60	
C[illegible]-E	-125.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.45	
C[illegible]	-125.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.93	
U[illegible]	-135.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		24.00	
A[illegible]	-70.0	0.0	0.0	0.00	-116.11	-122.25	37.19	12.19	49.81	9.81	87.00	N NN NN	CO	0.00	

* SERVICE AREA * INTFERED	INTFRING	SAT LONG DEG-E	* EARTH STA * LAT DEG-N	LONG DEG-E	C/I C/N DB	PFD DB W/SQM	RVC"D POWER DBW	****** GND-CO DB	ANTENNA GND-X DB	GAINS SAT-CO DB	******* SAT-X DB	EQUIV GAIN DB	INTRF CAT	POL	TRAN PWR DB-W	TOT C/N DB
	ATNTSPNT	-70.0	48.0	-89.5	91.40	-164.02	-205.16	-0.81	-0.81	0.00	0.00	2.20	N NN NN	CO	0.00	
ATNTSPNT	ATNTSPNT	-70.0	0.0	0.0	2.13	-116.11	-122.25	37.19	12.19	49.81	9.81	87.00	CARRIER	CO	0.00	2.0
	AHORZTST	-100.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		=100.0	
	CANPASTD	-144.5	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		25.60	
	CANPESTD	-125.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		26.45	
	CANONSTD	-125.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		20.93	
	USACTSTC	-135.0	0.0	0.0	999.90	-999.90	-999.99	-99.00	-99.00	-99.00	-99.00	-99.00	N NN NN		24.00	
	ATNTSPNT	-70.0	0.0	0.0	0.00	-116.11	-122.25	37.19	12.19	49.81	9.81	87.00	N NN NN	CO	0.00	

```
*****************************************************************************************
*                                                                                       *
*                                  SCENARIO DESCRIPTION                                 *
*                                                                                       *
*    THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,                   *
*       ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                               *
*    CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL                     *
*    BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                                    *
*    DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.                          *
*    USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.                   *
*        -- SAME AS TEST0005 EXCEPT NO BLOCKING --                                      *
*        ---- TEST FOR OVER THE HORIZON CARRIER ----                                   *
*                                                                                       *
*                                                                                       *
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DETAIL REPORT # 2 FOR TEST0008 UP MAX C/I= 260.00 PAGE 1

* SERVICE AREA * INTFERED	INTFRING	RAIN ATN DB	X-POL DISC DB	CANT ANGLE DEG	ELEV * ANGLE DEG	OFF-AXIS E.STA DEG	ANGLE* SAT DEG	SLNT * RANGE 10**6 M	ON-AXIS E.STA DB	GAIN* SAT DB	REL POL ANGLE DEG	FREQ GHZ	RN ZN	ANT-B BWDTH E.S. DEG	BWDTH SAT DEG	SM BK
AHORZTST	AHORZTST	4.00	22.20	-76.04	-51.45	0.000	1.994	46.964	59.60	49.81	0.00	17.550	B	0.17	0.53	N
	AHORZTST	4.00	19.01	-66.08	-54.07	0.000	2.885	47.161	59.60	49.81	0.00	17.550	B	0.17	0.53	N
	AHORZTST	0.00	99.00	-99.90	-51.45	0.000	1.994	46.964	59.60	49.81	0.00	17.550	B	0.17	0.53	N
	AHORZTST	0.00	99.00	-99.90	-54.07	0.000	2.885	47.161	59.60	49.81	0.00	17.550	B	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	26.01	48.661	6.759	38.974	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	26.68	48.587	6.361	38.913	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	30.58	48.825	5.877	38.559	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPESTD	0.00	99.00	-99.90	24.50	26.712	3.172	39.116	54.74	49.81	90.00	17.550	C	0.30	0.53	N
	CANPESTD	0.00	99.00	-99.90	29.48	27.075	3.472	38.657	54.74	49.81	90.00	17.550	C	0.30	0.53	N
	CANONSTD	0.00	99.00	-99.90	11.39	25.986	4.130	40.437	59.60	49.81	90.00	17.550	B	0.17	0.53	N
	CANONSTD	0.00	99.00	-99.90	10.18	25.822	3.496	40.565	59.60	49.81	90.00	17.550	B	0.17	0.53	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	45.687	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	40.11	38.338	2.147	37.771	55.76	49.81	90.00	17.550	B	0.27	0.53	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	43.724	55.76	49.81	-99.90	17.550	C	0.00	0.00	N
CANPASTD	CANPASTD	3.20	42.15	-87.16	31.04	0.000	0.364	38.519	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPASTD	3.27	42.71	-90.00	29.04	0.000	0.000	38.697	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPASTD	3.41	38.20	83.49	29.06	0.000	0.715	38.695	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.833	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.454	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	31.04	0.000	0.364	38.519	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	29.04	0.000	0.000	38.697	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	29.06	0.000	0.715	38.695	59.60	49.81	0.00	17.550	C	0.17	0.53	N
	CANPESTD	0.00	99.00	-99.90	9.44	20.392	2.173	40.645	54.74	49.81	90.00	17.550	C	0.30	0.53	N
	CANPESTD	0.00	99.00	-99.90	14.81	20.687	2.298	40.079	54.74	49.81	90.00	17.550	C	0.30	0.53	N
	CANONSTD	0.00	99.00	-99.90	4.16	20.060	1.088	41.218	59.60	49.81	90.00	17.550	B	0.17	0.53	N
	CANONSTD	0.00	99.00	-99.90	-0.23	19.847	1.222	41.704	59.60	49.81	90.00	17.550	B	0.17	0.53	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	44.835	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	15.72	10.057	4.016	39.986	55.76	49.81	90.00	17.550	B	0.27	0.53	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.500	55.76	49.81	-99.90	17.550	C	0.00	0.00	N
CANPESTD	CANPESTD	4.00	39.13	-0.85	17.94	0.030	0.398	39.759	54.74	49.81	0.00	17.550	C	0.30	0.53	N
	CANPESTD	3.86	40.64	-1.24	23.68	0.030	0.381	39.195	54.74	49.81	0.00	17.550	C	0.30	0.53	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.211	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.079	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	32.49	21.400	3.310	38.393	59.60	49.81	90.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	31.59	21.327	2.877	38.471	59.60	49.81	90.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	33.57	21.369	2.244	38.300	59.60	49.81	90.00	17.550	C	0.17	0.53	N
	CANPESTD	0.00	99.00	-99.90	17.94	0.030	0.398	39.759	54.74	49.81	0.00	17.550	C	0.30	0.53	N
	CANPESTD	0.00	99.00	-99.90	23.68	0.030	0.381	39.195	54.74	49.81	0.00	17.550	C	0.30	0.53	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	28.75	10.770	1.574	38.723	55.76	49.81	0.00	17.550	B	0.27	0.53	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.118	55.76	49.81	-99.90	17.550	C	0.00	0.00	N
CANONSTD	CANONSTD	3.63	29.83	-17.04	8.63	0.000	2.161	40.732	59.60	40.62	0.00	17.550	B	0.17	3.45	N
	CANONSTD	4.00	28.43	-13.12	5.33	0.000	1.617	41.089	59.60	40.62	0.00	17.550	B	0.17	2.78	N
	CANONSTD	4.00	14.82	-32.41	-34.14	0.000	5.100	45.411	59.60	40.62	0.00	17.550	B	0.17	1.13	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.211	59.60	40.62	-99.90	17.550	B	0.00	0.00	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.079	59.60	40.62	-99.90	17.550	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	32.49	21.400	3.919	38.393	59.60	40.62	90.00	17.550	C	0.17	1.23	N
	CANPASTD	0.00	99.00	-99.90	31.59	21.327	3.471	38.471	59.60	40.62	90.00	17.550	C	0.17	1.27	N

DETAIL REPORT # 2 FOR TEST0008 UP MAX C/I= 260.00 PAGE 2

* SERVICE AREA * INTFERED	INTFRING	RAIN ATN DB	X-POL DISC DB	CANT ANGLE DEG	ELEV * ANGLE DEG	OFF-AXIS ANGLE* E. STA DEG	SAT DEG	SLNT * RANGE 10**6 M	ON-AXIS GAIN* E. STA DB	SAT DB	REL POL ANGLE DEG	FREQ GHZ	RN ZN	ANT-B BMWDTH E. S. DEG	SAT DEG	SM BK
	CANPASTD	0.00	99.00	-99.90	33.57	21.369	2.843	38.300	59.60	40.62	90.00	17.550	C	0.17	1.17	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	54.74	40.62	-99.90	17.550	C	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	54.74	40.62	-99.90	17.550	C	0.00	0.00	N
	CANONSTD	0.00	99.00	-99.90	8.63	0.000	2.161	40.732	59.60	40.62	0.00	17.550	B	0.17	3.45	N
	CANONSTD	0.00	99.00	-99.90	5.33	0.000	1.617	41.089	59.60	40.62	0.00	17.550	B	0.17	2.78	N
	CANONSTD	0.00	99.00	-99.90	-34.14	0.000	5.100	45.411	59.60	40.62	0.00	17.550	B	0.17	1.13	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.118	55.76	40.62	-99.90	17.550	C	0.00	0.00	N
USACTSTC	USACTSTC	3.80	40.59	1.31	22.32	0.000	0.735	39.326	55.76	39.80	0.00	17.550	B	0.27	1.10	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.078	59.60	39.80	-99.90	17.550	B	0.00	0.00	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.817	59.60	39.80	-99.90	17.550	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	32.49	10.416	4.388	38.393	59.60	39.80	90.00	17.550	C	0.17	2.07	N
	CANPASTD	0.00	99.00	-99.90	30.98	10.373	4.053	38.524	59.60	39.80	90.00	17.550	C	0.17	2.18	N
	CANPASTD	0.00	99.00	-99.90	31.95	10.381	3.355	38.439	59.60	39.80	90.00	17.550	C	0.17	2.25	N
	CANPESTD	0.00	99.00	-99.90	13.85	10.503	2.226	40.179	54.74	39.80	0.00	17.550	C	0.30	2.10	N
	CANPESTD	0.00	99.00	-99.90	19.48	10.656	1.990	39.605	54.74	39.80	0.00	17.550	C	0.30	2.23	N
	USACTSTC	0.00	99.00	-99.90	22.32	0.000	0.735	39.326	55.76	39.80	0.00	17.550	B	0.27	1.10	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.891	55.76	39.80	-99.90	17.550	C	0.00	0.00	N
ATNTSPNT	ATNTSPNT	4.00	34.53	180.00	11.47	0.000	0.000	40.428	55.76	49.81	0.00	17.550	C	0.27	0.53	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	45.643	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.196	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	10.18	80.348	15.214	40.565	59.60	49.81	90.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	12.10	80.394	15.017	40.363	59.60	49.81	90.00	17.550	C	0.17	0.53	N
	CANPASTD	0.00	99.00	-99.90	16.61	80.988	14.852	39.895	59.60	49.81	90.00	17.550	C	0.17	0.53	N
	CANPESTD	0.00	99.00	-99.90	23.09	59.017	12.827	39.252	54.74	49.81	0.00	17.550	C	0.30	0.53	N
	CANPESTD	0.00	99.00	-99.90	25.31	59.665	13.239	39.041	54.74	49.81	0.00	17.550	C	0.30	0.53	N
	CANONSTD	0.00	99.00	-99.90	9.48	57.176	12.963	40.641	59.60	49.81	0.00	17.550	B	0.17	0.53	N
	CANONSTD	0.00	99.00	-99.90	11.15	57.032	12.417	40.463	59.60	49.81	0.00	17.550	B	0.17	0.53	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	45.291	59.60	49.81	-99.90	17.550	B	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	38.45	71.819	12.491	37.900	55.76	49.81	0.00	17.550	B	0.27	0.53	N
	ATNTSPNT	0.00	99.00	-99.90	11.47	0.000	0.000	40.428	55.76	49.81	0.00	17.550	C	0.27	0.53	N

DETAIL REPORT #2 FOR TEST0008 DOWN

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*****************************************************************************
*                                                                           *
*                            SCENARIO DESCRIPTION                           *
*                                                                           *
*    THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,       *
*       ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                   *
*    CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL         *
*    BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                        *
*    DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.              *
*    USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.       *
*        -- SAME AS TEST0005 EXCEPT NO BLOCKING --                          *
*        ---- TEST FOR OVER THE HORIZON CARRIER ----                        *
*                                                                           *
*                                                                           *
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DETAIL REPORT # 2 FOR TEST0008 DOWN MAX C/I= 260.00 PAGE 1

* SERVICE AREA * INTFERED	INTFRING	RAIN ATN DB	X-POL DISC DB	CANT ANGLE DEG	ELEV * ANGLE DEG	OFF-AXIS ANGLE* E.STA DEG	SAT DEG	SLNT * RANGE 10**6 M	ON-AXIS GAIN* E.STA DB	SAT DB	REL POL ANGLE DEG	FREQ GHZ	RN ZN	ANT-BMWDTH E.S. DEG	SAT DEG	SM BK
AHORZTST	AHORZTST	9.09	24.79	67.82	-51.45	0.000	1.994	46.964	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	AHORZTST	9.09	24.79	67.82	-51.45	0.000	1.994	46.964	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.833	37.22	40.77	-99.90	12.459	B	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.211	37.22	41.50	-99.90	12.473	B	0.00	0.00	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.078	37.22	36.86	-99.90	12.415	B	0.00	0.00	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	45.643	37.22	49.81	-99.90	12.415	B	0.00	0.00	N
AHORZTST	AHORZTST	9.62	29.70	78.31	-54.07	0.000	2.885	47.161	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	AHORZTST	9.62	29.70	78.31	-54.07	0.000	2.885	47.161	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.454	37.22	40.77	-99.90	12.459	B	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.079	37.22	41.50	-99.90	12.473	B	0.00	0.00	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.817	37.22	36.86	-99.90	12.415	B	0.00	0.00	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.196	37.22	49.81	-99.90	12.415	B	0.00	0.00	N
CANPASTD	CANPASTD	1.27	45.32	88.73	11.43	0.000	1.544	40.433	37.22	40.77	0.00	12.459	B	2.28	2.69	N
	AHORZTST	1.92	33.12	-76.57	6.31	46.175	6.093	40.983	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	1.27	45.32	88.73	11.43	0.000	1.544	40.433	37.22	40.77	0.00	12.459	B	2.28	2.69	N
	CANPESTD	1.59	41.60	-5.73	10.64	20.322	2.756	40.516	37.22	41.50	90.00	12.473	B	2.28	1.79	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.50	44.82	-2.18	11.36	9.906	5.691	40.441	37.22	36.86	90.00	12.415	B	2.28	3.30	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	41.935	37.22	49.81	-99.90	12.415	B	0.00	0.00	N
CANPASTD	CANPASTD	1.45	38.65	81.42	9.55	0.000	0.705	40.633	37.22	40.77	0.00	12.459	B	2.28	1.22	N
	AHORZTST	1.38	40.19	-82.90	10.18	46.312	5.260	40.565	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	1.45	38.65	81.42	9.55	0.000	0.705	40.633	37.22	40.77	0.00	12.459	B	2.28	1.22	N
	CANPESTD	1.51	45.04	1.82	11.39	20.289	1.694	40.437	37.22	41.50	90.00	12.473	B	2.28	1.99	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.56	41.96	5.38	10.74	9.872	4.743	40.506	37.22	36.86	90.00	12.415	B	2.28	3.55	N
	ATNTSPNT	2.89	29.78	-15.58	4.02	77.138	13.684	41.233	37.22	49.81	90.00	12.415	B	2.28	0.53	N
CANPASTD	CANPASTD	1.28	37.55	76.54	18.83	0.000	0.370	39.670	37.22	40.77	0.00	12.459	B	2.28	1.07	N
	AHORZTST	1.23	39.26	-78.83	19.84	47.526	5.562	39.569	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	1.28	37.55	76.54	18.83	0.000	0.370	39.670	37.22	40.77	0.00	12.459	B	2.28	1.07	N
	CANPESTD	1.34	46.29	2.88	21.80	20.812	1.437	39.376	37.22	41.50	90.00	12.473	B	2.28	1.68	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.37	41.42	8.50	20.75	10.119	4.148	39.480	37.22	36.86	90.00	12.415	B	2.28	3.49	N
	ATNTSPNT	2.20	29.38	-23.86	10.18	79.003	14.304	40.565	37.22	49.81	90.00	12.415	B	2.28	0.53	N
CANPASTD	CANPASTD	1.33	34.54	66.19	26.65	0.000	1.715	38.915	37.22	40.77	0.00	12.459	B	2.28	2.70	N
	AHORZTST	1.16	41.32	-78.12	32.18	48.767	5.275	38.419	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	1.33	34.54	66.19	26.65	0.000	1.715	38.915	37.22	40.77	0.00	12.459	B	2.28	2.70	N
	CANPESTD	1.29	43.08	9.42	32.78	21.282	0.816	38.367	37.22	41.50	90.00	12.473	B	2.28	1.03	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.35	38.01	17.30	30.26	10.327	2.808	38.587	37.22	36.86	90.00	12.415	B	2.28	3.39	N
	ATNTSPNT	1.75	30.51	-31.13	19.99	81.149	14.531	39.555	37.22	49.81	90.00	12.415	B	2.28	0.53	N
CANPASTD	CANPASTD	0.22	58.47	84.79	10.79	0.000	1.043	40.501	37.22	40.77	0.00	12.459	C	2.28	2.10	N
	AHORZTST	0.22	54.54	-79.69	8.63	46.290	5.682	40.732	37.22	49.81	0.00	12.459	C	2.28	0.53	N
	CANPASTD	0.22	58.47	84.79	10.79	0.000	1.043	40.501	37.22	40.77	0.00	12.459	C	2.28	2.10	N
	CANPESTD	0.22	61.05	-1.82	11.39	20.325	2.201	40.437	37.22	41.50	90.00	12.473	C	2.28	1.87	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	C	0.00	0.00	N

* SERVICE AREA * INTFERED	INTFRING	RAIN ATN DB	X-POL DISC DB	CANT ANGLE DEG	ELEV * ANGLE DEG	OFF-AXIS ANGLE* E. STA DEG	SAT DEG	SLNT RANGE 10**6 M	*ON-AXIS GAIN* E. STA DB	SAT DB	REL POL ANGLE DEG	FREQ GHZ	RN ZN	ANT-BMWDTH E. S. DEG	SAT DEG	SM BK
	USACTSTC	0.22	60.99	1.82	11.39	9.898	5.186	40.437	37.22	36.86	90.00	12.415	C	2.28	3.44	N
	ATNTSPNT	0.22	50.67	-17.50	1.15	76.924	13.872	41.550	37.22	49.81	90.00	12.415	C	2.28	0.53	N
CANPASTD	CANPASTD	1.25	36.63	70.18	29.06	0.000	1.211	38.695	37.22	40.77	0.00	12.459	B	2.28	2.35	N
	AHORZTST	1.21	38.42	-73.44	30.58	48.825	5.877	38.559	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	1.25	36.63	70.18	29.06	0.000	1.211	38.695	37.22	40.77	0.00	12.459	B	2.28	2.35	N
	CANPESTD	1.28	47.33	4.33	33.57	21.369	1.384	38.300	37.22	41.50	90.00	12.473	B	2.28	1.15	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.30	40.79	12.68	31.95	10.381	3.355	38.439	37.22	36.86	90.00	12.415	B	2.28	3.15	N
	ATNTSPNT	1.96	28.78	-33.66	16.61	80.988	14.852	39.895	37.22	49.81	90.00	12.415	B	2.28	0.53	N
CANPASTD	CANPASTD	0.00	99.00	-99.90	0.30	0.000	1.803	41.645	37.22	40.77	0.00	12.459	D	2.28	2.64	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	41.939	37.22	49.81	-99.90	12.459	D	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	0.30	0.000	1.803	41.645	37.22	40.77	0.00	12.459	D	2.28	2.64	N
	CANPESTD	0.00	99.00	-99.90	-0.25	19.730	2.442	41.705	37.22	41.50	90.00	12.473	D	2.28	1.91	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	D	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	0.16	9.617	5.707	41.660	37.22	36.86	90.00	12.415	D	2.28	3.38	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	42.387	37.22	49.81	-99.90	12.415	D	0.00	0.00	N
CANPASTD	CANPASTD	1.32	42.13	84.79	10.79	0.000	1.043	40.501	37.22	40.77	0.00	12.459	B	2.28	2.10	N
	AHORZTST	1.56	36.80	-79.69	8.63	46.290	5.682	40.732	37.22	49.81	0.00	12.459	B	2.28	0.53	N
	CANPASTD	1.32	42.13	84.79	10.79	0.000	1.043	40.501	37.22	40.77	0.00	12.459	B	2.28	2.10	N
	CANPESTD	1.51	45.04	-1.82	11.39	20.325	2.201	40.437	37.22	41.50	90.00	12.473	B	2.28	1.87	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.22	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.50	45.04	1.82	11.39	9.898	5.186	40.437	37.22	36.86	90.00	12.415	B	2.28	3.44	N
	ATNTSPNT	4.50	25.07	-17.50	1.15	76.924	13.872	41.550	37.22	49.81	90.00	12.415	B	2.28	0.53	N
CANPESTD	CANPESTD	1.65	33.40	20.97	17.94	0.227	1.133	39.759	37.23	41.50	0.00	12.473	B	2.27	1.97	N
	AHORZTST	1.15	43.24	82.91	24.50	26.515	3.172	39.116	37.23	49.81	90.00	12.459	B	2.27	0.53	N
	CANPASTD	2.23	27.36	61.75	9.44	20.195	2.488	40.645	37.23	40.77	90.00	12.459	B	2.27	1.98	N
	CANPESTD	1.65	33.40	20.97	17.94	0.227	1.133	39.759	37.23	41.50	0.00	12.473	B	2.27	1.97	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.23	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.94	30.38	25.12	13.85	10.306	2.226	40.179	37.23	36.86	0.00	12.415	B	2.27	2.95	N
	ATNTSPNT	1.38	39.39	-11.98	23.09	58.820	12.827	39.252	37.23	49.81	0.00	12.415	B	2.27	0.53	N
CANPESTD	CANPESTD	1.49	35.01	20.67	23.68	0.227	1.054	39.195	37.23	41.50	0.00	12.473	B	2.27	1.97	N
	AHORZTST	1.13	47.08	86.37	29.48	26.878	3.472	38.657	37.23	49.81	90.00	12.459	B	2.27	0.53	N
	CANPASTD	1.84	29.12	60.08	14.81	20.490	2.663	40.079	37.23	40.77	90.00	12.459	B	2.27	2.27	N
	CANPESTD	1.49	35.01	20.67	23.68	0.227	1.054	39.195	37.23	41.50	0.00	12.473	B	2.27	1.97	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.23	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.68	31.92	25.91	19.48	10.459	1.990	39.605	37.23	36.86	0.00	12.415	B	2.27	3.13	N
	ATNTSPNT	1.41	36.61	-17.91	25.31	59.468	13.239	39.041	37.23	49.81	0.00	12.415	B	2.27	0.53	N
CANPESTD	CANPESTD	1.47	34.81	22.78	26.27	0.227	1.360	38.951	37.23	41.50	0.00	12.473	B	2.27	2.01	N
	AHORZTST	1.12	47.39	85.96	32.72	27.065	3.344	38.373	37.23	49.81	90.00	12.459	B	2.27	0.53	N
	CANPASTD	1.83	29.00	57.35	16.55	20.596	3.020	39.900	37.23	40.77	90.00	12.459	B	2.27	2.47	N
	CANPESTD	1.47	34.81	22.78	26.27	0.227	1.360	38.951	37.23	41.50	0.00	12.473	B	2.27	2.01	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.23	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.65	31.75	28.41	21.65	10.519	1.630	39.392	37.23	36.86	0.00	12.415	B	2.27	2.98	N
	ATNTSPNT	1.39	36.41	-19.79	28.06	59.890	13.245	38.785	37.23	49.81	0.00	12.415	B	2.27	0.53	N
CANPESTD	CANPESTD	2.83	35.77	6.76	10.31	0.227	1.434	40.552	37.23	41.50	0.00	12.473	D	2.27	1.99	N
	AHORZTST	2.19	40.04	-87.82	11.36	25.819	4.629	40.441	37.23	49.81	90.00	12.459	D	2.27	0.53	N
	CANPASTD	3.13	29.20	77.23	6.89	19.956	0.665	40.920	37.23	40.77	90.00	12.459	D	2.27	0.85	N

* SERVICE AREA * INTFERED	INTFRING	RAIN ATN DB	X-POL DISC DB	CANT ANGLE DEG	ELEV * ANGLE DEG	OFF-AXIS E.STA DEG	ANGLE* SAT DEG	SLNT RANGE 10**6 M	*ON-AXIS E.STA DB	GAIN* SAT DB	REL POL ANGLE DEG	FREQ GHZ	RN ZN	ANT-BMWDTH E.S. DEG	SAT DEG	SM BK
	CANPESTD	2.83	35.77	6.76	10.31	0.227	1.434	40.552	37.23	41.50	0.00	12.473	D	2.27	1.99	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.23	40.62	-99.90	12.606	D	0.00	0.00	N
	USACTSTC	3.13	32.37	10.01	8.81	10.148	4.181	40.713	37.23	36.86	0.00	12.415	D	2.27	3.63	N
	ATNTSPNT	3.51	30.05	-12.08	7.44	56.916	13.318	40.861	37.23	49.81	0.00	12.415	D	2.27	0.53	N
CANPESTD	CANPESTD	0.90	39.02	22.78	26.27	0.227	1.360	38.951	37.23	41.50	0.00	12.473	A	2.27	2.01	N
	AHORZTST	0.69	51.60	85.96	32.72	27.065	3.344	38.373	37.23	49.81	90.00	12.459	A	2.27	0.53	N
	CANPASTD	1.13	33.21	57.35	16.55	20.596	3.020	39.900	37.23	40.77	90.00	12.459	A	2.27	2.47	N
	CANPESTD	0.90	39.02	22.78	26.27	0.227	1.360	38.951	37.23	41.50	0.00	12.473	A	2.27	2.01	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.23	40.62	-99.90	12.606	A	0.00	0.00	N
	USACTSTC	1.01	35.96	28.41	21.65	10.519	1.630	39.392	37.23	36.86	0.00	12.415	A	2.27	2.98	N
	ATNTSPNT	0.86	40.63	-19.79	28.06	59.890	13.245	38.785	37.23	49.81	0.00	12.415	A	2.27	0.53	N
CANPESTD	CANPESTD	1.41	36.64	18.27	26.11	0.227	0.766	38.965	37.23	41.50	0.00	12.473	B	2.27	1.88	N
	AHORZTST	1.12	49.08	-89.99	30.51	26.998	3.894	38.565	37.23	49.81	90.00	12.459	B	2.27	0.53	N
	CANPASTD	1.66	30.51	61.30	17.77	20.637	2.457	39.777	37.23	40.77	90.00	12.459	B	2.27	2.36	N
	CANPESTD	1.41	36.64	18.27	26.11	0.227	0.766	38.965	37.23	41.50	0.00	12.473	B	2.27	1.88	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.23	40.62	-99.90	12.606	B	0.00	0.00	N
	USACTSTC	1.56	33.33	24.13	22.24	10.531	2.132	39.334	37.23	36.86	0.00	12.415	B	2.27	3.45	N
	ATNTSPNT	1.47	34.91	-21.34	24.29	59.580	13.575	39.137	37.23	49.81	0.00	12.415	B	2.27	0.53	N
CANONSTD	CANONSTD	1.87	36.78	10.31	8.63	0.000	2.161	40.732	37.32	40.62	0.00	12.606	B	2.25	3.49	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	49.81	-99.90	12.459	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	40.77	-99.90	12.459	B	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	41.50	-99.90	12.473	B	0.00	0.00	N
	CANONSTD	1.87	36.78	10.31	8.63	0.000	2.161	40.732	37.32	40.62	0.00	12.606	B	2.25	3.49	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	49.81	-99.90	12.415	B	0.00	0.00	N
CANONSTD	CANONSTD	2.54	31.67	14.43	5.33	0.000	1.617	41.089	37.32	40.62	0.00	12.606	B	2.25	2.78	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	49.81	-99.90	12.459	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	40.77	-99.90	12.459	B	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	41.50	-99.90	12.473	B	0.00	0.00	N
	CANONSTD	2.54	31.67	14.43	5.33	0.000	1.617	41.089	37.32	40.62	0.00	12.606	B	2.25	2.78	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	49.81	-99.90	12.415	B	0.00	0.00	N
CANONSTD	CANONSTD	7.56	25.59	-13.71	-34.14	0.000	5.100	45.411	37.32	40.62	0.00	12.606	B	2.25	1.13	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	49.81	-99.90	12.459	B	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	40.77	-99.90	12.459	B	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	41.50	-99.90	12.473	B	0.00	0.00	N
	CANONSTD	7.56	25.59	-13.71	-34.14	0.000	5.100	45.411	37.32	40.62	0.00	12.606	B	2.25	1.13	N
	ATNTSPNT	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.32	49.81	-99.90	12.415	B	0.00	0.00	N
USACTSTC	USACTSTC	1.10	33.77	39.42	22.32	0.000	0.735	39.326	37.19	36.86	0.00	12.415	A	2.29	1.55	N
	AHORZTST	0.72	46.56	76.60	40.11	36.338	2.147	37.771	37.19	49.81	90.00	12.459	A	2.29	0.53	N
	CANPASTD	1.34	31.06	46.90	15.72	10.057	4.473	39.986	37.19	40.77	90.00	12.459	A	2.29	2.70	N
	CANPESTD	0.95	36.57	34.13	28.75	10.770	2.489	38.723	37.19	41.50	0.00	12.473	A	2.29	2.00	N
	USACTSTC	1.10	33.77	39.42	22.32	0.000	0.735	39.326	37.19	36.86	0.00	12.415	A	2.29	1.55	N
	ATNTSPNT	0.80	43.59	-18.78	38.45	71.819	12.491	37.900	37.19	49.81	0.00	12.415	A	2.29	0.53	N
USACTSTC	USACTSTC	1.79	30.05	32.71	19.79	0.000	1.231	39.575	37.19	36.86	0.00	12.415	B	2.29	2.20	N
	AHORZTST	1.14	43.41	80.68	33.93	37.975	2.672	38.269	37.19	49.81	90.00	12.459	B	2.29	0.53	N
	CANPASTD	2.10	27.27	53.59	14.13	10.016	3.573	40.149	37.19	40.77	90.00	12.459	B	2.29	2.53	N
	CANPESTD	1.55	32.94	27.60	25.14	10.700	1.611	39.057	37.19	41.50	0.00	12.473	B	2.29	2.00	N
	USACTSTC	1.79	30.05	32.71	19.79	0.000	1.231	39.575	37.19	36.86	0.00	12.415	B	2.29	2.20	N

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* SERVICE AREA * INTFERED	INTFRING	RAIN ATN DB	X-POL DISC DB	CANT ANGLE DEG	ELEV ANGLE DEG	* OFF-AXIS E.STA DEG	ANGLE* SAT DEG	SLNT RANGE 10**6 M	*ON-AXIS E.STA DB	GAIN* SAT DB	REL POL ANGLE DEG	FREQ GHZ	RN ZN	ANT-B E.S. DEG	MWDTH SAT DEG	SM BK
	ATNTSPNT	1.33	38.61	-16.73	31.71	70.972	12.778	38.460	37.19	49.81	0.00	12.415	B	2.29	0.53	N
ATNTSPNT	ATNTSPNT	2.79	38.64	90.00	11.47	0.000	0.000	40.428	37.19	49.81	0.00	12.415	C	2.29	0.53	N
	AHORZTST	0.00	99.00	-99.90	-99.90	-99.900	-99.900	43.724	37.19	49.81	-99.90	12.459	C	0.00	0.00	N
	CANPASTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	47.500	37.19	40.77	-99.90	12.459	C	0.00	0.00	N
	CANPESTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.118	37.19	41.50	-99.90	12.473	C	0.00	0.00	N
	CANONSTD	0.00	99.00	-99.90	-99.90	-99.900	-99.900	0.000	37.19	40.62	-99.90	12.606	C	0.00	0.00	N
	USACTSTC	0.00	99.00	-99.90	-99.90	-99.900	-99.900	46.891	37.19	36.86	-99.90	12.415	C	0.00	0.00	N
	ATNTSPNT	2.79	38.64	90.00	11.47	0.000	0.000	40.428	37.19	49.81	0.00	12.415	C	2.29	0.53	N

```
*****************************************************************************
*                                                                           *
*                            SCENARIO DESCRIPTION                           *
*                                                                           *
*    THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,       *
*       ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                   *
*    CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL         *
*    BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                        *
*    DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.              *
*    USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.       *
*        -- SAME AS TEST0005 EXCEPT NO BLOCKING --                          *
*        ---- TEST FOR OVER THE HORIZON CARRIER ----                        *
*                                                                           *
*                                                                           *
*****************************************************************************
```

AGGREGATE UPPATH SUMMARY FOR TEST0009 PAGE 1

BLOCK CODE	SERVICE AREA	SAT LONG	FLT LAT	FLT LONG	**** CO-CHANNEL **** WST-INTFR	C/I	MARGN	UPPER-ADJ C/I	UPPER-ADJ MARGN	LOWER-ADJ C/I	LOWER-ADJ MARGN	NEXT-UPPER C/I	NEXT-UPPER MARGN	NEXT-LOWER C/I	NEXT-LOWER MARGN		TOTAL MARGN
	AHORZTST	-100.0	40.0	60.0	USACTSTC	-54.6	-82.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	-82.6
	AHORZTST	-100.0	40.0	70.0	USACTSTC	-58.7	-86.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	-86.7
	CANPASTD	-144.5	50.0	-130.0	USACTSTC	64.6	36.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	36.6
	CANPASTD	-144.5	51.0	-126.0	USACTSTC	64.6	36.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	36.6
	CANPASTD	-144.5	49.0	-120.0	USACTSTC	64.6	36.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	36.6
	CANPESTD	-125.0	56.9	-89.0	USACTSTC	60.7	32.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	32.7
	CANPESTD	-125.0	52.8	-95.2	USACTSTC	60.7	32.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	32.7
	CANONSTD	-125.0	70.0	-95.0	CANPASTD	73.7	45.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	45.7
	CANONSTD	-125.0	70.0	-80.0	CANPASTD	73.7	45.7	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	45.7
	CANONSTD	-125.0	60.0	80.0	CANPASTD	-65.0	-93.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	-93.0
	USACTSTC	-135.0	41.8	-87.7	CANPESTD	58.5	30.5	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	30.5
	ATNTSPNT	-70.0	0.0	0.0	CANPASTD	91.0	63.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	63.0

```
*****************************************************************************************
*                                                                                       *
*                                  SCENARIO DESCRIPTION                                 *
*                                                                                       *
*    THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,                   *
*       ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                               *
*    CALCULATED,  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL                     *
*    BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                                    *
*    DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.                          *
*    USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.                   *
*        -- SAME AS TEST0005 EXCEPT NO BLOCKING --                                      *
*        ---- TEST FOR OVER THE HORIZON CARRIER ----                                   *
*                                                                                       *
*                                                                                       *
*****************************************************************************************
```

AGGREGATE DOWNPATH SUMMARY FOR TEST0008 PAGE 1

BLOCK CODE	SERVICE AREA	SAT LONG	TEST POINT LAT	TEST POINT LONG	**** CO-CHANNEL **** WST-INTFR	C/I	MARGN	UPPER-ADJ C/I	UPPER-ADJ MARGN	LOWER ADJ C/I	LOWER ADJ MARGN	NEXT UPPER C/I	NEXT UPPER MARGN	NEXT LOWER C/I	NEXT LOWER MARGN		TOTAL MARGN
	AHORZTST	-100.0	40.0	60.0	EARTH STATION OVER HORIZON FROM ITS OWN SATELLITE												
		-100.0	40.0	70.0	EARTH STATION OVER HORIZON FROM ITS OWN SATELLITE												
	CANPASTD	-144.5	70.0	-141.0	AHORZTST	194.3	166.3	50.0	36.0	50.0	36.0	0.0	24.6	0.0	24.6	***	21.3
		-144.5	70.0	-120.0	AHORZTST	192.1	164.1	35.0	21.0	35.0	21.0	0.0	24.6	0.0	24.6	***	16.4
		-144.5	60.0	-120.0	AHORZTST	195.2	167.2	37.4	23.4	37.4	23.4	0.0	24.6	0.0	24.6	***	17.9
		-144.5	49.0	-114.0	AHORZTST	191.1	163.1	32.0	18.0	32.0	18.0	0.0	24.6	0.0	24.6	***	14.2
		-144.5	70.0	-130.0	AHORZTST	194.0	166.0	42.8	28.8	42.8	28.8	0.0	24.6	0.0	24.6	***	20.2
		-144.5	49.0	-120.0	AHORZTST	193.9	165.9	41.2	27.3	41.2	27.3	0.0	24.6	0.0	24.6	***	19.7
		-144.5	81.0	-145.0		99.0	99.0	42.3	28.4	42.3	28.4	0.0	24.6	0.0	24.6	***	20.0
		-144.5	70.0	-130.0	AHORZTST	194.2	166.2	43.0	29.0	43.0	29.0	0.0	24.6	0.0	24.6	***	20.2
	CANPESTD	-125.0	56.9	-89.0	USACTSTC	32.9	4.9	45.6	31.6	45.6	31.6	0.0	24.6	-0.0	24.6	***	4.7
		-125.0	52.8	-95.2	USACTSTC	33.8	5.8	46.3	32.3	46.3	32.3	0.0	24.6	-0.0	24.6	***	5.7
		-125.0	49.8	-95.2	USACTSTC	30.5	2.5	45.6	31.6	45.6	31.6	0.0	24.6	-0.0	24.6	***	2.5
		-125.0	70.0	-106.0	USACTSTC	41.8	13.8	34.7	20.8	34.7	20.8	0.0	24.6	-0.0	24.6	***	11.8
		-125.0	49.8	-95.2	USACTSTC	30.5	2.5	45.5	31.5	45.5	31.5	0.0	24.6	-0.0	24.6	***	2.4
		-125.0	52.0	-100.0	USACTSTC	35.0	7.0	44.6	30.7	44.6	30.7	0.0	24.6	-0.0	24.6	***	6.8
	CANONSTD	-125.0	70.0	-95.0		99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	99.0
		-125.0	70.0	-80.0		99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	99.0
		-125.0	60.0	80.0	EARTH STATION OVER HORIZON FROM ITS OWN SATELLITE												
	USACTSTC	-135.0	41.8	-87.7	CANPESTD	33.8	5.8	44.9	30.9	44.9	30.9	33.8	58.3	99.0	99.0	***	5.7
		-135.0	48.0	-89.5	CANPESTD	21.9	-6.1	40.7	26.8	40.7	26.8	21.9	46.4	99.0	99.0	***	-6.1
	ATNTSPNT	-70.0	0.0	0.0		99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	99.0

C-2

```
**********************************************************************************************
*                                                                                            *
*                                    SCENARIO DESCRIPTION                                    *
*                                                                                            *
*    THIS SET HAS FOLLOWING CHARACTERISTICS.  NO BLOCKING, RAIN ATTN,                        *
*       ALL POINTS SELECTED, 1 CHANNELIZATION, PROT RATIO                                    *
*    CALCULATED.  POINTING ERRORS, C/N WITH G/T AND TEMP, BEAM CALL                          *
*    BY ID , NOM FREQ=1,  SOME CARRIERS OVER HORIZON                                         *
*    DB,  RAIN MARGIN, CANONSTD HAS C/N WITH MANY FEEDERLINKS.                               *
*    USES FAST ROLL-OFF SATELLITE ANTENNA AND CPM FEEDERLINK ANTENNA.                        *
*        -- SAME AS TEST0005 EXCEPT NO BLOCKING --                                           *
*        ---- TEST FOR OVER THE HORIZON CARRIER ----                                        *
*                                                                                            *
*                                                                                            *
**********************************************************************************************
```

AGGREGATE TOTAL SUMMARY FOR TEST0008 PAGE 1

BLOCK CODE	SERVICE AREA	SAT LONG	TEST POINT LAT	TEST POINT LONG	CO-CHANNEL C/I	CO-CHANNEL MARGN	UPPER-ADJ C/I	UPPER-ADJ MARGN	LOWER ADJ C/I	LOWER ADJ MARGN	NEXT-UPPER C/I	NEXT-UPPER MARGN	LOWER ADJ C/I	LOWER ADJ MARGN		TOTAL MARGIN
	AHORZTST	-100.0	40.0	60.0			RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER									
		-100.0	40.0	70.0			RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER									
	CANPASTD	-144.5	70.0	-141.0	64.6	33.6	50.0	33.0	50.0	33.0	0.0	21.6	0.0	21.6	***	18.1
		-144.5	70.0	-120.0	64.6	33.6	35.0	18.0	35.0	18.0	0.0	21.6	0.0	21.6	***	13.4
		-144.5	60.0	-120.0	64.6	33.6	37.4	20.4	37.4	20.4	0.0	21.6	0.0	21.6	***	14.9
		-144.5	49.0	-114.0	64.6	33.6	32.0	15.0	32.0	15.0	0.0	21.6	0.0	21.6	***	11.1
		-144.5	70.0	-130.0	64.6	33.6	42.8	25.8	42.8	25.8	0.0	21.6	0.0	21.6	***	17.1
		-144.5	49.0	-120.0	64.6	33.6	41.2	24.3	41.2	24.3	0.0	21.6	0.0	21.6	***	16.6
		-144.5	81.0	-145.0	64.6	33.6	42.3	25.4	42.3	25.4	0.0	21.6	0.0	21.6	***	16.9
		-144.5	70.0	-130.0	64.6	33.6	43.0	26.0	43.0	26.0	0.0	21.6	0.0	21.6	***	17.1
	CANPESTD	-125.0	56.9	-89.0	32.9	1.9	45.6	28.6	45.6	28.6	0.0	21.6	-0.0	21.6	***	1.7
		-125.0	52.8	-95.2	33.8	2.8	46.3	29.3	46.3	29.3	0.0	21.6	-0.0	21.6	***	2.7
		-125.0	49.8	-95.2	30.5	-0.5	45.6	28.6	45.6	28.6	0.0	21.6	-0.0	21.6	***	-0.5
		-125.0	70.0	-106.0	41.7	10.7	34.7	17.8	34.7	17.8	0.0	21.6	-0.0	21.6	***	8.8
		-125.0	49.8	-95.2	30.5	-0.5	45.5	28.5	45.5	28.5	0.0	21.6	-0.0	21.6	***	-0.6
		-125.0	52.0	-100.0	35.0	4.0	44.6	27.7	44.6	27.7	0.0	21.6	-0.0	21.6	***	3.8
	CANONSTD	-125.0	70.0	-95.0	-65.0	-96.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	-96.0
		-125.0	70.0	-80.0	-65.0	-96.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	-96.0
		-125.0	60.0	80.0			RECEIVER OVER HORIZON FROM ITS OWN TRANSMITTER									
	USACTSTC	-135.0	41.8	-87.7	33.8	2.8	44.9	27.9	44.9	27.9	33.8	55.3	99.0	99.0	***	2.7
		-135.0	48.0	-89.5	21.9	-9.1	40.7	23.8	40.7	23.8	21.9	43.4	99.0	99.0	***	-9.1
	ATNTSPNT	-70.0	0.0	0.0	91.0	60.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.0	***	60.0

APPENDIX D

NUMERICAL LIMITS ON SCENARIO DATA REQUESTS Are Listed.

The SOUP5 system has some limits on the maximum number of tables which can be included in each scenario. These numbers were chosen to be large enough to accommodate almost every conceivable scenario. The limits below are incorporated in SOUP5 Version 3 Mod 8 (SOUP5V3.8). They can be changed at each installation if desired. See Appendix B of the Programmer's Manual. The current values at each installation can be found on lines 5-25 of DATA.P1.

LIMIT	VALUE
Number of Service Areas	300
Number of feederlink transmitters	2400
Number of earth station receivers	2400
Number of point overrides	500
Number of points in one point set	50
Number of scenario description lines	10
Number of channelizations for up	15
Number of channelizations for down	15
Number of channel families for up	40
Number of channel families for down	40
Number of protection ratio templates up, down, and total	3

LIMIT	VALUE
Number of ellipses, up and down	360
Number of antennas up and down	160
Number of Gain tables up and down	60
Number of Gain entries up and down	1500

APPENDIX E

ERROR HANDLING, ERROR MESSAGES AND EDITING

An important function of SOUP5 is editing the data for errors and inconsistences.

When Program 1 detects an error, it takes the following steps:

- Prints an error message describing the error in the input echo report (Unit IURPT)

- Assigns an error severity code; the codes are described below:
  - -20 Minor error, no effect
  - -21 Minor error, no probable effect
  - -22 Results may be affected but calculations can continue
  - -97 Part 1 and Part 2 may continue, but Part 3 cannot process
  - -98 Part 1 may continue, but Part 2 cannot process
  - -99 Part 1 cannot continue.

- Stores the value of the highest error code encountered.

- If the highest error code is greater than or equal to the stop code, (Columns 1-2 of 1st control record), the program stops with a stop code of 99.

- If the stop code is greater than the highest error code, processing continues whenever possible

- At the end of the input echo report (on unit IURPT), the program prints a count of the total errors, and the errors listed by error severity code level. An example of the list is reproduced below.

```
TOTAL NUMBER OF ERRORS =     0

ERRORS BY ERROR LEVEL
LEVEL = 20  COUNT =     0
LEVEL = 21  COUNT =     0
LEVEL = 22  COUNT =     0
LEVEL =  0  COUNT =     0
LEVEL =  0  COUNT =     0
LEVEL =  0  COUNT =     0
LEVEL =  0  COUNT =     0
LEVEL = 97  COUNT =     0
LEVEL = 98  COUNT =     0
LEVEL = 99  COUNT =     0
```

- At the end of the run, the program terminates with a stop code equal to the highest error code encountered.

Program 2 handles errors in a similar fashion except that the error messages, documented in section 4.2.2 are written on unit IERUNT.

PROGRAM 1 ERROR MESSAGES

Program 1 produces a variety of error messages. Each message with its severity level is listed below, with further explanation if necessary. An error level greater than the stop code (ISTOP) in DATA.CONTROL will cause the program to stop.

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
1	P1 control data not found	99
2	Error reading P1 control data - the record does not match the FORTRAN format	99

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
3	Premature end of file in control data	99
4	Error reading control data for P2-P5 - one of the records does not match FORTRAN format	99
5	Requested scenario not found in scenario file - check for misspelled scenario in control file	99
6	Error reading scenario file - a record in the scenario file does not match its FORTRAN format	99
7	Scenario file is out of sort - The numbers in the card type field or subcard field are not the correct sequence	21
8	Premature end of scenario file - Check that number of service areas (cols 65-67 of Record 3 in Data.Scenario) is not greater than number of service areas in scenario.	99
9	Out of space in array LKEY - the array designed to hold all the unique requested keys for antennas, point sets, beams, protection ratios, service areas, channel families, and gain tables is filled	99
10	Out of space in tree arrays - the arrays designed to hold all tree data (see error 9 above) is filled	99

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
11	Too many description lines truncating to max See Appendix D	20
12	To many service areas truncating to max. See Appendix D	98
13	Too many channelizations - number of channelizations exceeds maximum. See Appendix D	99
14	Channelization file is out of sort - Channelization should be sorted of 1st 4 bytes, character ascending	21
15	End of Chzth data while searching for key - a non-existent channelization was requested - possible misspelling	97
16	Channelization key not in Chztn data - check for misspelling (note: channelization key is character, not numeric. "01" is not the same as " 1").	97
17	Premature end of parameter file	99
18	Error reading parameter file - record does not match FORTRAN format	99
19	Too many channel families - number of requested channel families exceeds maximum. See Appendix A	99

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
20	Channel family key not in Chztn data - check for misspelling (note: channelization key is character, not numeric. "01" is not the same as " 1"	98
21	Too many channels in channel table - number of channel exceed maximum. See Appendix D	99
22	Using Down/Up Chztn for up/down paths - a channelization flagged as UP is being used for down path or vice versa	22
23	End of RARC Param data while searching for key - cannot find key, check for misspelling	97
24	Protection ratio set key not in data - cannot find key, check for misspelling	97
25	Too many protection ratio template sets - number of protection ratio templates exceeds maximum allowed. See Appendix D	99
26	End of Prot Ratio data while searching for key - cannot find protection ratio key, check for misspelling	97
27	RARC param data out of sort - See Note C	21
28	Not all beams found - A non-existent beam requested. Check for misspelling	97

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
29	End of beam data while searching for key - A non-existent beam requested, check for misspelling	97
30	Point set file out of sort - See Point set section of 3.3.2 for sorting sequence	21
31	Point set key not in point set data - check for misspelling	97
32	Too many points in point table - number of points in table exceeds maximum. See Appendix D	99
33	End of point set data while searching for key - cannot find requested key. Check for misspelling	97
34		98
35	Too many points in a point set - number of points in set exceeds maximum. See Appendix D	99
36	Gain table file out of sort - Gain tables should be sorted on first 4 bytes, character ascending	21/99
37	Gain table key not in gain table data - request for a non-existent key check for misspellings	97
38	Illegal gain pattern type Pattern must be 1 to 15	97

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
39	Too many gain tables - number of requested gain tables exceeds maximum. See Appendix D	99
40	End of gain table data while searching for key - request for a non-existent gain table	97
41	Too many beams - number of requested beams exceeds maximum. See Appendix D	99
42	End of antenna data while searching for key - request for a non-existent antenna, check misspellings	97
43	Too many antennas - number of requested antennas exceeds maximum See Appendix D	99
44	Not all antennas found - request for a non-existent antenna, check for misspellings	98
45	Too many gain table entries - gain table entry table exceeds maximum size. See Appendix D	99
46	Not all gain tables found - request for a non-existent gain table	22
47	Not all channel families found - request for a non-existent channel family (see error 20)	98

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
48	Not all protection ratios found - request for a non-existent protection ratio set. Check for misspellings	21
49	Too many point overrides - number of point overrides exceeds maximum. See Appendix D	99
50	No diameter or cov ang specified for E-ant. Earth antenna has a diameter/ coverage angle $\leq$ 0.	97
51	Diameter or Cov. Ang specified for S-ant - satellite antenna coverage angle is set by beam data, not antenna data. Number on antenna record will be ignored	22
52	Channels are out of order - channels must be listed in ascending order	22
53	Protection ratio data out of sort	21
54	Too many protection ratio sets - number of requested protection ratio sets exceeds maximum	99
55	Circular antenna has unequal axes	22
56	LAT. of PNT. > 70 Deg. rain attenu = 0 dB - the rain attenuation model is not valid within 20 degrees of pole. Rain attenuation for this point will be set at 0 dB	20

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
57		97
58	Up/down data not present for requested calcs. A up or down calculation was requested and the up or down scenario cards are not present	98
59	Delta-G zero or negative	98
60	No satellite power type flag. - The satellite power flag was not set either as a default or in the service area	98
61	Satellite power set to zero - Satellite transmitter power is specified as 0 Watts	98
62	No FLT power flag - The FLT power flag was not set either as a default, or in the service area	98
63	FLT power set to zero - FLT transmitter power is set to 0 Watts	98
64		
65	No Earth Antenna specified - The Earth antenna key fields, both in the Scenario header and service area cards are blank	98
66	No satellite antenna specified - Similar to Note 65 above	98
67		

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
68	dB value to large (small), possible problem - A dB value has a absolute value so large that an underflow or overflow problem may exist.	97
69	No rain zone specified - The rain zone fields in both the point set header and the point itself are both blank	98
70	No protection ratio specified - A needed protection ratio key field has been left blank	98
71	Transmit antenna used as a receiver	98
72	Receive antenna used as a transmitter	21
73	Receive antenna has no noise temperature specified	97
74	Receive antenna has no noise/fig.-merit flag	97
75	Min. FLT antenna diameter must be > 0 This field (cols 16-19 of RARC record 1 in Data.Parameters) must be > 0, even if antenna gain type 4 is not used.	
76	P2 Graphs phi-zero must be > 0	98
77	Channel Bandwidth must be > 0	22
78	Channel separation should be > 0	22
79	Channel noise bandwidth should be > 0	98

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
80	Channel separation should be > 0	98
81	Peak-to-peak deviation should be > 0	98
82	Channel number exceeds no. of channels	20
83	Percent-worst-month must be non-negative	98
84	Read error in Requirement file	99
85	Read error in Ellipse file	99
86	Read error on reading a point override card.	99
87	Single Vtm chnl incompatible with group flag - either turn group flag (col 75 scenario Record 3) to "N" or single victim channel (col 62-63 of same record) to zero	22
88	No points selected from set. - No points of the point types requested in the point selection code exist in the point set	98
89	Report option unspecified, set to "NO"	20
90	Scenario field protected - cannot override - The installation has designated a scenario field (marked by astericks in the control override output reports) as protected from control overrides.	22

ERROR NUMBER	ERROR MESSAGE	ERROR LEVEL
91	All interference calculations inhibited - The existence of optional Control Records 9, 10 or 11 indicate that the user wants to calculate interference only into selected service areas, but none of the requested area names match service areas in scenario	97
92	Max Phi/Phi0 cannot be negative - Put 0 or positive number in col. 59-61 of Scenario Record 3	98

INSTRUCTIONS AS TO

APPENDIX F

HOW TO ENTER A PROTECTION RATIO TEMPLATE ARE GIVEN.

The template in Figure 2 has five segments, as noted in the caption. Now we shall find the necessary parameters for the segments.

- Segment 1
  - Upper limit
    The upper normalized frequency of this segment is -.982
  - Offset
    The offset is the normalized frequency coordinate of some point on the segment whose value we know. The labeled end point is the obvious choice, -.982
  - Slope
    86 from the figure
  - Segment value at offset
    We have chosen the end point as the offset point. At this point the value is -22 dB.
- Segment 2
  - Upper limit
    -.248

- Offset
  We can choose either end point for the offset. Arbitrarily we choose the upper end point, -.248

- Slope
  Slope is equal to (ΔPR/Δ frequency) where Δ means difference

  $$((22) - 0)/((-.982) - (-.248)) = 29.97$$

- Segment Value at Offset
  The value at the upper end point, chosen as offset, = 0.

- Segment 3
  - Upper limit
    .248

  - Offset
    We choose .248 (because the slope is zero, we could use any number as an offset - the segment-value at-offset will always be zero)

  - Slope.
    0

  - Segment-value-at-offset
    0

- Segment 4
  - Upper limit
    .82

  - Offset
    We choose .82

  - Slope
    As in Segment 2, we calculate 29.97

- Segment-value-at-offset
  -22

- Segment 5
  - Upper limit
    As this last segment extends indefinitely the upper limit has no meaning, we leave it blank

  - Offset
    We know the value at only one point, .92, so we choose it as an offset

  - Slope
    -86

  - Segment value at offset
    -22.0

FIGURE 2
SAMPLE PROTECTION RATIO TEMPLATE

The following template is composed of 5 segments (each segment is labeled with a circled number). The two end segments 1 and 5, extend indefinitely. The segments are also designated.

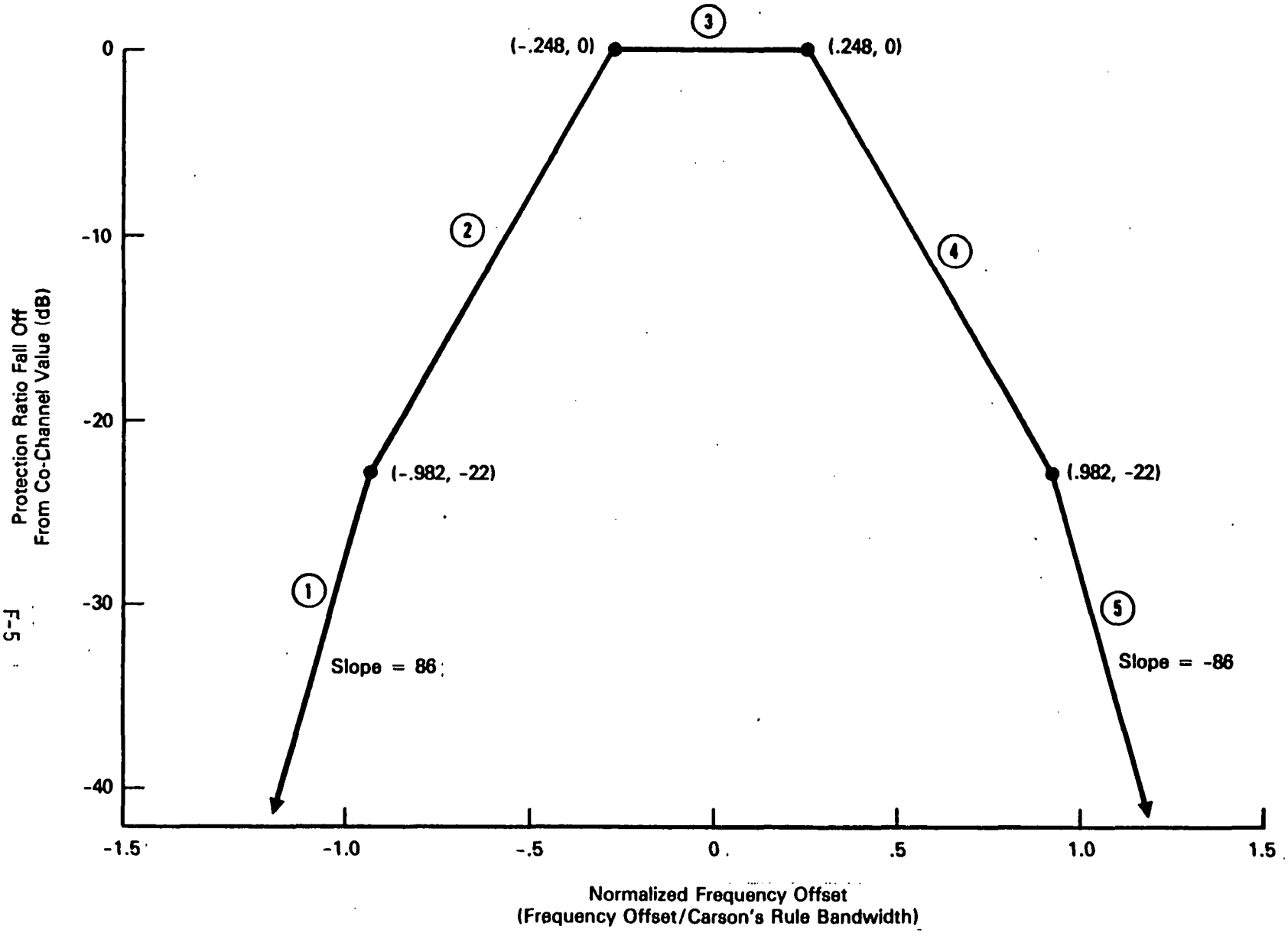
0
-10
-20
-30
-40
-1.5
-1.0
-.5
0
.5
1.0
1.5
(-.248, 0)
(.248, 0)
(-.982, -22)
(.982, -22)
1
2
3
4
5
Slope = 86
Slope = -86
Protection Ratio Fall Off
From Co-Channel Value (dB)
Normalized Frequency Offset
(Frequency Offset/Carson's Rule Bandwidth)

FIGURE 2

APPENDIX G

RELATION BETWEEN RARC PARAMETER, CHANNELIZATION, CHANNEL FAMILIES, AND INTERFERENCE CATEGORIES

The channelization data contains the following information:

- Lowest Center Frequency. The center frequency of channel 1
- Number of channels. Used only to determine whether the RARC parameters are violated
- Channel Bandwidth. Also used only to determine the whether the RARC parameters are violated
- Channel Separation. Used to determine the center frequency of all channels except channel 1
- Channel Noise Bandwidth. Used only to determine carrier to noise ratio
- Top Baseband Frequency and Peak-to-Peak Deviation. Used to determine Carson's Rule Bandwidth for protection ratio calculations.

Figure 3 gives a sample of a set of RARC parameters, channelization and a set of channel families.

A violation of the RARC parameters would occur only if a channel in the family overlaps one of the two guard bands. Channel one does not overlap the guard band, but if the number of channels in the channelization is greater than 36, the upper channels will overlap the upper guard band and the user will be warned. The L, M, and H on each channel family illustrate the nominal frequency the user will get for each channel family by specifying the low, median, or high nominal frequency option. As mentioned above, this frequency is used for all gain and attenuation calculations.

The interference categories between the four families are calculated using the channel numbers only (the effect of the bandwidth is taken into account during the calculation of protection ratio from the template (Section VIII.D above).

We discuss some of the interference categories between the four families below, using the notation X → Y to designate channel family X interfering into channel family Y.

- AA → AA, BB → BB, CC → CC, and DD → DD all co-channel (obviously!)

- AA → BB
  All channels receive lower adjacent interference

- AA → CC
  Most channels in CC receive both next-upper-adjacent and next-lower-adjacent interference simultaneously.

- AA → DD
  Here we have both co-channel, next-upper-adjacent and next-lower-adjacent interference categories simultaneously.

- BB > AA
  All channels are upper adjacent

- BB > CC
  Lower adjacent

Other family pairs are done in an analogous fashion.

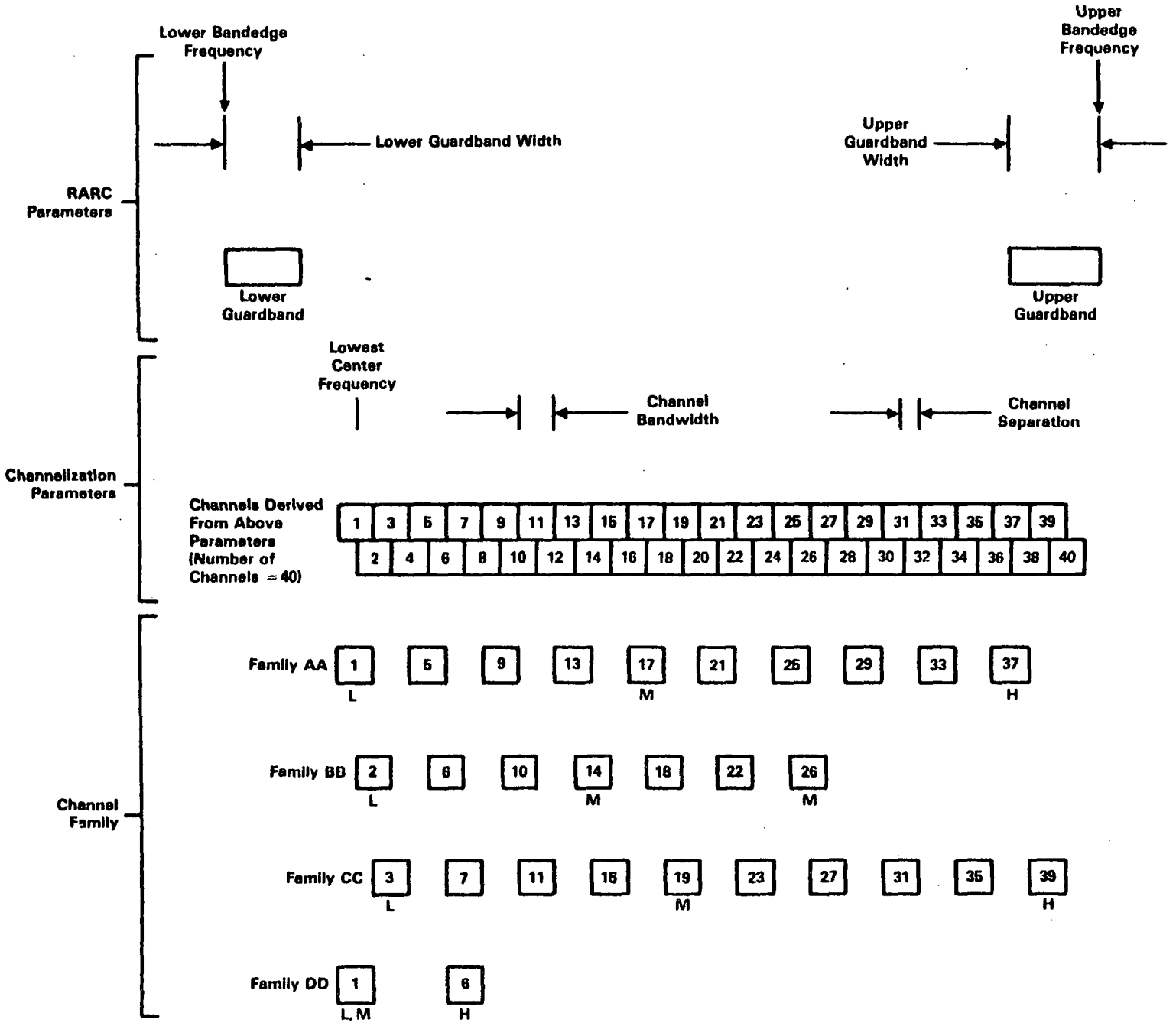
Lower Bandedge Frequency
Upper Bandedge Frequency
Lower Guardband Width
Upper Guardband Width
RARC Parameters
Lower Guardband
Upper Guardband
Lowest Center Frequency
Channel Bandwidth
Channel Separation
Channelization Parameters
Channels Derived From Above Parameters (Number of Channels = 40)
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
Family AA
1 5 9 13 17 21 25 29 33 37
L M H
Family BB
2 6 10 14 18 22 26
L M M
Family CC
3 7 11 15 19 23 27 31 35 39
L M H
Family DD
1 6
L, M H
Channel Family
Frequency

FIGURE 3

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