Precipitation Processing System (PPS) Product Format Description

Digital Hybrid Scan Reflectivity (DHR)

DHR is a 256-level digital product. It is generated once every volume scan. It contains reflectivity values at every sample bin location of a 1 degree by 1 Km (or 0.54 nautical miles) polar grid out to a range of 230 Km (or 124 nautical miles). The reflectivity values are assembled from the Hybrid Scan array, which is generated on the fly.

The product size is fixed at 85716 bytes. The product is compressed as of RPG Build 6.

The 256 data levels cover reflectivity values between -32.0 and +94.5 dBZ, in 0.5 dBZ increments. Data level code 0 indicates 'Below Threshold'; code 1 indicates 'Range Folded'; other codes from 2 through 255 represent reflectivity values.

The Product Symbology block contains two layers:
Layer 1 (packet code 16)
- Reflectivity data – a fixed 230 x 360 array

Layer 2 (packet code 1)
- Precip Status Message values (ASCII)
- Adaptable parameters (ASCII)
- Bias Table (ASCII)
- Supplemental data (ASCII)

This product is not compressed.

The following table provides a detailed specification of the DHR product.

Highlighted areas in the description below indicate changes since the previous Build

[Note: a half-word (INT*2) is 16 bits]

MESSAGE HEADER

References

2620001F (Class I User ICD):
Fig 3-3 “Message Header”

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
01	Message Code	INT*2	N/A	32	N/A	From Fig 3-3
02	Date of Message	INT*2	Julian Date	1 to 32,767	1	From Fig 3-3
03-04	Time of Message	INT*4	Seconds	0 to 86,399	1	From Fig 3-3
05-06	Length of Message	INT*4	N/A	85716	1	From Fig 3-3
07	Source ID	INT*2	N/A	0 to 999	1	From Fig 3-3
08	Destination ID	INT*2	N/A	0 to 999	1	From Fig 3-3
09	Number of Blocks	INT*2	N/A	3	1	From Fig 3-3

PRODUCT DESCRIPTION BLOCK

References

2620001F (Class I Users ICD):
Fig 3-6 “Graphic Product Message” Sheet 2, Sheet 6, Sheet 7
Table III “Message Codes for Products”
Table V “Product Dependent Halfword Definition for Product Description Block”

2620003F (Product Spec ICD):
TBD

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
10	Block Divider	INT*2	NA	-1	N/A	From Fig 3-6 Sheet 6
11-12	Latitude of Radar	INT*4	Degrees	-90 to +90	0.001	From Fig 3-6 Sheet 6
13-14	Longitude of Radar	INT*4	Degrees	-180 to +180	0.001	From Fig 3-6 Sheet 6
15	Height of Radar	INT*2	Feet	-100 to +11000	1	From Fig 3-6 Sheet 6
16	Product Code	INT*2	N/A	32		From Table III

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
17	Operational Mode	INT*2	N/A	0 to 2	N/A	From Fig 3-6 Sheet 6
18	Volume Coverage Pattern	INT*2	N/A	1 to 767	N/A	From Fig 3-6 Sheet 6
19	Sequence Number	INT*2	N/A	-13, 0 to 32767	1	From Fig 3-6 Sheet 6
20	Volume Scan Number	INT*2	N/A	1 to 80	1	From Fig 3-6 Sheet 6
21	Volume Scan Date	INT*2	Julian Date	1 to 32767	1	From Fig 3-6 Sheet 6
22-23	Volume Scan Start Time	INT*4	Seconds GMT	0 to 86399	1	From Fig 3-6 Sheet 6
24	Product Generation Date	INT*2	Julian Date	1 to 32767	1	From Fig 3-6 Sheet 6
25-26	Product Generation Time	INT*4	Seconds	0 to 86399	1	From Fig 3-6 Sheet 6
27	Not used	INT*2	N/A	0	N/A	From OSF doc
28	Not used	INT*2	N/A	0	N/A	From OSF doc
29	Elevation Number	INT*2	N/A	0 to 20	1	From Fig 3-6 Sheet 6
30	Not used	INT*2	N/A	0	N/A	From OSF doc
31	Minimum DHR data level	INT*2	dBZ	-32.0	0.1	From OSF doc
32	Data level increment	INT*2	dBZ	0.5	0.1	From OSF doc
33	Number of data levels	INT*2	N/A	256	1	From OSF doc
34	Not used	INT*2	N/A	0	N/A	From OSF doc
35	Not used	INT*2	N/A	0	N/A	From OSF doc
36	Not used	INT*2	N/A	0	N/A	From OSF doc
37	Not used	INT*2	N/A	0	N/A	From OSF doc
38	Not used	INT*2	N/A	0	N/A	From OSF doc
39	Not used	INT*2	N/A	0	N/A	From OSF doc
40	Not used	INT*2	N/A	0	N/A	From OSF doc
41	Not used	INT*2	N/A	0	N/A	From OSF doc
42	Not used	INT*2	N/A	0	N/A	From OSF doc
43	Not used	INT*2	N/A	0	N/A	From OSF doc
44	Not used	INT*2	N/A	0	N/A	From OSF doc
45	Not used	INT*2	N/A	0	N/A	From OSF doc
46	Not used	INT*2	N/A	0	N/A	From OSF doc
47	Maximum Reflectivity	INT*2	dBZ	95	1	DOORS version of Class I Users

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
						ICD
48	Date of Scan	INT*2	Julian Date	1 to 32767	1	DOORS version of Class I Users ICD
49	Average Time of Hybrid Scan	INT*2	Minutes	1 – 1439	1	DOORS version of Class I Users ICD
50	Not Used	INT*2	N/A	0	N/A	DOORS version of Class I Users ICD
51	Not Used	INT*2	N/A	0	N/A	DOORS version of Class I Users ICD
52	Not used	INT*2	N/A	0	N/A	From OSF doc
53	Not used	INT*2	N/A	0	N/A	From OSF doc
54	Version	INT*1	N/A	2	1	From Sheet 7, Note 2 - DOORS version of Class I Users ICD
54	Spot Blank	INT*1	N/A	0 to 1	1	From Fig 3-6 Sheet 6
55-56	Offset to Product Symbology block	INT*4	Half-words	60	1	From OSF doc
57-58	Offset to Graphic Attributes block	INT*4	Half-words	0	1	From OSF doc
59-60	Offset to Graphic Alphanumeric block	INT*4	Half-words	0	1	From OSF doc

PRODUCT SYMBOLOGY BLOCK

References

2620001F (Class I User ICD):

Section 3.2.1.2 “Product Symbology Block”
Fig 3-6 “Graphic Product Message” (Sheet 8)
Fig 3-8b “Text and Special Symbol Packets”
Fig 3-11c “Digital Radial Data Array Packet”

2620003 (ICD for Product Specification):

Appendix C, Format VIII “DHR and ….”

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
61	Block Divider	INT*2	N/A	-1	N/A	From Fig 3-6 Sheet 8
62	Block ID	INT*2	N/A	1	N/A	From Fig 3-6 Sheet 8
63-64	Length of Block	INT*4	Bytes	85596	1	From Fig 3-6 Sheet 8
65	Number of Layers	INT*2	N/A	2	1	DOORS version of Class I Users ICD
66	Layer Divider	INT*2	N/A	-1	N/A	From Fig 3-6 Sheet 8
67-68	Length of Data Layer not including layer divider and layer length	INT*4	N/A	84974	1	From Fig 3-6 Sheet 8
	BEGINNING OF THE DHR REFLECTIVITY DATA LAYER					
69	Packet Code	INT*2	N/A	16	N/A	Fig 3-11c
70	Index of First Range Bin	INT*2	N/A	0	1	Fig 3-11c
71	Number of Range Bins	INT*2	N/A	230	1	Fig 3-11c
72	I Center of Sweep	INT*2	N/A	0	1	Fig 3-11c
73	J Center of Sweep	INT*2	N/A	0	1	Fig 3-11c
74	Range Scale Factor (230/#Bins)	Scaled Integer	N/A	1.0	0.001	Fig 3-11c
75	Number of Radials	INT*2	N/A	360	1	}Repeat
76	Number of Bytes in Radial	INT*2	N/A	230	1	}For
77	Radial Start Angle	Scaled Integer	Degrees	0.0 to 359.9	0.1	}
78	Radial Delta Angle	Scaled Integer	Degrees	1.0	0.1	}Each
79	Level 0	INT*1	N/A	0 to 255	1	}
	Level 1	INT*1	N/A	0 to 255	1	}
80	Level 2	INT*1	N/A	0 to 255	1	}

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
	Level 3	INT*1	N/A	0 to 255	1	}
…	…	…	…	…	…	}
…	…	…	…	…	…	}
193	Level (N-1)	INT*1	N/A	0 to 255	1	}
	Level (N)	INT*1	N/A	0 to 255	1	}Row
…	…	…	…	…	…	
…	…	…	…	…	…	}Between
…	…	…	…	…	…	}
…	…	…	…	…	…	}
42555	Level(N-1)	INT*1	N/A	0 to 255	1	}Radial 2 and
	Level(N)	INT*1	N/A	0 to 255	1	}Radial 360
	BEGINNING OF THE DHR ALPHANUMERIC LAYER					
42556	Text layer divider	INT*2	N/A	-1	N/A	
42557-42558	Layer length not including layer divider and layer length	INT*4	N/A	600	1	
42559	Text layer packet code	INT*2	N/A	1	N/A	Fig 3-8b
42560	Length of text layer in bytes	INT*2	N/A	596	1	
42561	I Starting Point	INT*2	Km/4 or Pixels	0	1	Fig 3-8b
42562	J Starting Point	INT*2	Km/4 or Pixels	0	1	Fig 3-8b
	BEGINNING OF PRECIP STATUS MESSAGE SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42563-42566	Precip Status Message (PSM) header	ASCII* 8	N/A	“PSM(nn)” (space padded?)	N/A	Format VIII Note 1; nn is the number of adaptable parameters which are contained in this sub-layer
42567-42570	Current Date Precip Function Ran	ASCII* 8	JULIAN DAYS	0 – 99999	1	Format VIII

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
42571-42574	Current Time Precip Function Ran	ASCII* 8	SEC	0 – 86399	1	Format VIII
42575-42578	Last Date Precip Detected	ASCII* 8	JULIAN DAYS	0 – 99999	1	Format VIII
42579-42582	Last Time Precip Detected	ASCII* 8	SEC	0 – 86399	1	Format VIII
42583-42586	Current Precip Category	ASCII* 8	--	0 to 2	1	Format VIII
42587-42590	Previous Precip Category	ASCII* 8	--	0 to 2	1	Format VIII
	BEGINNING OF THE EPRE ADAPTATION DATA SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42591-42594	Adaptation data header	ASCII* 8	N/A	"ADAP(nn)"	N/A	Format VIII Note 2; nn is the number of adaptable parameters which are contained in this sub-layer
42595-42598	Width of radar beam	ASCII* 8	Deg	"XXXXX.XX" (space padded) Range: 0.80 to 1.00 Default: 0.90	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42599-42602	Blockage Threshold	ASCII* 8	%	"XXXXX.XX" (space padded) Range: 0.00 to 100.00 Default: 50.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42603-42606	Clutter Threshold	ASCII* 8	%	"XXXXX.XX" (space padded)	0.01	Format VIII Note 2; discussions on REC

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
				Range: 0.00 to 100.00 Default: 50.00		performance Nov 2003
42607-42610	Weight Threshold	ASCII* 8	%	"XXXXX.XX" Range: 0.00 to 100.00 Default: 50.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42611-42614	Full Hybrid Scan Threshold	ASCII* 8	%	"XXXXX.XX" (space padded) Range: 90.00 to 100.00 Default: 99.70	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42615-42618	Low Reflectivity Threshold	ASCII* 8	dBZ	"XXXXX.XX" (space padded) Range: -40.00 to -20.00 Default: -32.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42619-42622	Rain Detection Reflectivity Threshold	ASCII* 8	dBZ	"XXXXX.XX" (space padded) Range: 10.00 to 30.00 Default: 20.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42623-42626	Rain Detection Area Threshold	ASCII* 8	Km^2	"XXXXX.XX" (space padded) Range: 0.00 to 82800.00 Default: 80.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
42627-42630	Rain Detection Time Threshold	ASCII* 8	Min	"XXXXX.XX" (space padded) Range: 0.00 to 1440.00 Default: 60.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings 8/28/03
42631-42634	Z-R Mult. Coef.	ASCII* 8	N/A	"XXXXX.XX" (space padded) Range: 50.00 to 500.00 Default: 300.00	0.01	Format VIII Note 2
42635-42638	Z-R Power Coef.	ASCII* 8	N/A	"XXXXX.XX" Range: 1.00 to 2.00 Default: 1.40	0.01	Format VIII Note 2
42639-42642	Min. Refl. to Convert to Rate	ASCII* 8	dBZ	"XXXXX.XX" Range: -32.00 to +20.00 Default: 0.00	0.01	Format VIII Note 2
42643-42646	Max. Refl. to Convert to Rate	ASCII* 8	dBZ	"XXXXX.XX" (space padded) Range: 50.00 to 90.00 Default: 70.00	0.01	Format VIII Note 2
42647-42650	Number of Exclusion Zones	ASCII* 8	N/A	"XXXXX.XX" (space padded) Range: 0.00 to 20.00 Default: 0.00	0.01	Format VIII Note 2; Dennis's email to Cheryl on "Final" Adaptation settings

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
						8/28/03
	BEGINNING OF THE RATE ALGORITHM ADAPTATION DATA SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42651-42654	Max Storm Speed	ASCII* 8	M/S	"XXXXX.XX" (space padded) Range: 10.00 to 40.00 Default: 25.00	0.01	
42655-42658	Thresh. Max Time Difference	ASCII* 8	MIN	"XXXXX.XX" (space padded) Range: 10.00 to 30.00 Default: 15.00	0.01	
42659-42662	Min. Area Time Continuity	ASCII* 8	KM**2	"XXXXX.XX" (space padded) Range: 50.00 to 1000.00 Default: 200.00	0.01	
42663-42666	Time Continuity Parameter #1	ASCII* 8	1/HR	"XXXXX.XX" (space padded) Range: 0.10 to 99.90 Default: 24.00	0.01	
42667-42670	Time Continuity Parameter #2	ASCII* 8	1/HR	"XXXXX.XX" (space padded) Range: 0.10 to 99.90 Default: 13.20	0.01	

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
42671-42674	Max. Rate Echo Area Change	ASCII* 8	KM**2/HR	“XXXXX.XX” (space padded) Range: 20.00 to 700.00 Default: 200.00	0.01	
42675-42678	Range Cut-Off	ASCII* 8	KM	“XXXXX.XX” (space padded) Range: 0.00 to 230.00 Default: 230.00	0.01	
42679-42682	Range Effect Coeff. #1	ASCII* 8	dBR	“XXXXX.XX” (space padded) Range: 0.00 to 3.00 Default: 0.00	0.01	
42683-42686	Range Coeff. Coeff. #2	ASCII* 8	N/A	“XXXXX.XX” (space padded) Range: 1.00 to 10.00 Default: 1.00	0.01	
42687-42690	Range Coeff. Coeff. #3	ASCII* 8	N/A	“XXXXX.XX” (space padded) Range: 0.00 to 1.00 Default: 0.00	0.01	
42691-42694	Min Precip. Rate for inclusion	ASCII* 8	MM/HR	“XXXXX.XX”	0.01	

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
				(space padded) Range: 0.00 to 10.00 Default: 0.00		
42695-42698	Max Precip. Rate allowed	ASCII* 8	MM/HR	"XXXXX.XX" (space padded) Range: 200.00 to 1600.00 Default: 103.80	0.01	
	BEGINNING OF THE ACCUM ALGORITHM ADAPTATION DATA SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42699-42702	Thresh. Elapsed Time to Restart	ASCII* 8	MIN	"XXXXX.XX" (space padded) Range: 45.00 to 60.00 Default: 60.00	0.01	
42703-42706	Max. Time for Interpolation	ASCII* 8	MIN	"XXXXX.XX" (space padded) Range: 15.00 to 60.00 Default: 30.00	0.01	
42707-42710	Min. Time in Hourly Period	ASCII* 8	MIN	"XXXXX.XX" (space padded) Range: 45.00 to 60.00 Default: 54.00	0.01	
42711-42714	Threshold Hourly Outlier	ASCII* 8	MM	"XXXXX.XX" (space	0.01	

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
				padded) Range: 400.00 to 800.00 Default: 400.00		
42715-42718	End Time Gage Accumulation	ASCII* 8	MIN	"XXXXX.XX" (space padded) Range: 0.00 to 55.00 Default: 0.00	0.01	
42719-42722	Max Period Accum Value	ASCII* 8	MM	"XXXXX.XX" (space padded) Range: 200.00 to 800.00 Default: 400.00	0.01	
42723-42726	Max Hourly Accum Value	ASCII* 8	MM	"XXXXX.XX" (space padded) Range: 200.00 to 1600.00 Default: 800.00	0.01	
	BEGINNING OF THE ADJUSTMENT ALGORITHM ADAPTATION DATA SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42727-42730	Time Bias Estimation	ASCII* 8	MIN	"XXXXX.XX" (space padded) Range: 10.00 to 59.00 Default: 50.00	0.01	
42731-42734	Thresh. No. Gage-Radar Pairs	ASCII* 8	N/A	"XXXXX.XX"	0.01	

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
				(space padded) Range: 6.00 to 30.00 Default: 10.00		
42735-42738	Reset Bias Value	ASCII* 8	N/A	"XXXXX.XX" (space padded) Range: 0.50 to 2.00 Default: 1.00	0.01	
42739-42742	Longest Allowable Lag	ASCII* 8	HOURS	"XXXXX.XX" (space padded) Range: 100.00 to 1000.00 Default: 168.00	0.01	
42743-42746	Bias Applied Flag	ASCII* 8	N/A	"XXXXXXX X" (space padded) Range: T or F Default: F	N/A	
	BEGINNING OF THE SUPPLEMENTAL SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42747-42750	Supplemental data header	ASCII* 8	**N/A**	"SUPL(nn)"	N/A	nn is the number of elements of information which follow
42751-42754	Average Scan Date	ASCII* 8	Julian Dalys	0-99999	1	
42755-42758	Average Scan Time	ASCII* 8	Sec	0-86399	1	
42759-42762	Flag Zero Hybrid	ASCII* 8	N/A	0 or 1	1	
42763-42766	Rain Detection Flag	ASCII* 8	N/A	0 or 1	1	

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
42767-42770	Reset STP Flag	ASCII* 8	N/A	0 or 1	1	
42771-42774	Precip. Begin Flag	ASCII* 8	N/A	0 or 1	1	
42775-42778	Last Date Rain	ASCII* 8	Julian Days	0-99999	1	
42779-42782	Last Time Rain	ASCII* 8	Sec	0-86399	1	
42783-42786	Rejected Blockage Counter	ASCII* 8	N/A	0-82800	1	
42787-42790	Rejected AP/Clutter Counter	ASCII* 8	N/A	0-82800	1	
42791-42794	Total Bins Smooth	ASCII* 8	N/A	0	1	Not implemented
42795-42798	Pecentage Filled Hybrid Scan	ASCII* 8	N/A	0.00 to 100.00	0.01	
42799-42802	Highest Elevation Angle	ASCII* 8	N/A	0.50 to 19.50	0.01	
42803-42806	Rain Summation Area	ASCII* 8	N/A	>= 0.00	0.01	
42807-42810	Volume Spot Blank	ASCII* 8	N/A	0 to 1	1	
	BEGINNING OF THE BIAS TABLE SUB-LAYER OF DHR ALPHANUMERIC LAYER					
42811-42814	Bias Table data header	ASCII* 8	N/A	"BIAS(mm)"	N/A	From HSEB DPA Decoder doc; mm is the number of lines of information including header and data lines
42815-42818	Time Last Update of Local Bias Value	ASCII* 8	Sec	0-86399	1	ICD for Product Specification 2620003
42819-42822	Date Last Update of Local Bias Value	ASCII* 8	Julian Days	0-99999	1	
42823-42826	Time of Last Update of Local Bias Table	ASCII* 8	Sec	0-86399	1	
42827-	Date of Last	ASCII*	Julian	0-99999	1	

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
42830	Update of Local Bias Table	8	Days			
42831-42834	Observation Time of Latest Bias Table	ASCII* 8	Sec	0-86399	1	
42835-42838	Observation Date of Latest Bias Table	ASCII* 8	Julian Days	0-99999	1	
42839-42842	Generation Time of Latest Bias Table	ASCII* 8	Sec	0-86399	1	
42843-42846	Generation Date of Latest Bias Table	ASCII* 8	Julian Days	0-99999	1	
42847-42850	Mean-Field Bias Estimate	ASCII* 8	N/A	.01-100.	.01	ICD for Product Specification 2620003
42851-42854	Effective G-R Pair	ASCII* 8	N/A	0.00-999.99	.01	ICD for Product Specification 2620003
42855-42858	Memory Span	ASCII* 8	N/A	0.001-10.**7	.001	ICD for Product Specification 2620003

[GRAPHIC ALPHANUMERIC BLOCK IS NOT USED BY DHR]

[TABULAR ALPHANUMERIC BLOCK IS NOT USED BY DHR]

References

"Decoding of DPA Products", published by OHD/HSEB, updated as of AWIPS Release OB3 (1/8/04)

HALF-WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
(n) – (n+29)	Blank	ASCII	N/A	" "	N/A	
(n+30)	Nulls	INT*2	N/A	0	N/A	Variable

– (n+…..)						number of Nulls

The following is an example of the alphanumeric layer (layer 2) of the DHR product, as rendered by CODE cvt.

*** ORPG DATABASE PRODUCT LOAD UTILITY ***
-> Number of Products Available=171
-> Message ID=163
-> Product Info: LBuffer# 057 MSGLEN 085812 VOLNUM 05 ELEV 03
-> Set Processing ONLY for Layer Number 2
packet code 1 found

Packet 1: Write Text (No Value) Summary Information
Length of Data Block (in bytes) = 596
I Starting Point: 0
J Starting Point: 0
Message to follow:
PSM (6) 0 0 0 0 0 0 **ADAP(38)** 0.90 50.00
50.00 50.00 99.70 -32.00 20.00 80.00 60.00 300.00 1.40 0.00
70.00 0.00 25.00 15.00 200.00 24.00 13.20 200.00 230.00 0.00
1.00 0.00 0.00 103.80 60.00 30.00 54.00 400.00 0.00 400.00
800.00 50.00 10.00 1.00 168.00 F **SUPL(15**) 10460 48192 0
1 0 0 10460 48192 0 1575 0 99.98 2.40
14244.86 0 **BIAS(11**) 47040 10460 0 0 72000 11695 75453
11695 1.2550 13.49 168.

program complete