

Precipitation Processing System (PPS) Product Format Description

Supplemental Precipitation Data (SPD)

Change History Log		
Author	Date	Build
Kelley Miles	3/8/2005	8
Jihong Liu	3/17/2005	Correction
Daniel Stein & Jihong Liu	17 Apr 06	Updated description, and fields range; current for Build 9

Setting	Value	Comment
Product type	Alphanumeric	
Time generated	Once every volume scan	
Product size	2834	
Compression	None	
Resolution	N/A	
AWIPS ID	WSRSPDxxx	xxx is site ID for originating WFO

Description/Purpose

Supplemental Precipitation Data (SPD) produces 2 pages of information. (See the end of this document for [sample SPD output](#).) On the first page, there are two sections of data generated by two separate algorithms. The “Gage Bias” portion is computed by the *prcpadju* (precip adjustment) algorithm; the remainder of the first page is generated by the EPRE algorithm. The first section is a listing of local bias data, including the “best” bias estimate, its corresponding memory span, sample size, and the date/time of the last bias update. The parameter “EFFECTIVE # G/R PAIRS” is selectable by the user via adaptation data. This parameter determines which row from page 2 is used to compute the bias multiplicative factor. On the first row where “EFFECTIVE NO. G-R PAIRS” is greater than the input parameter, the value in the “MEAN FIELD BIAS” field is multiplied against the radar-measured precip values to derive a biased precip value.

The second section of page 1 lists some of the supplemental data generated by the EPRE algorithm including the total number of blockage bins rejected, clutter bins rejected, final bins smoothed, percent hybrid scan bins filled, highest elevation used, and total rain area in square kilometers. Note that the field “FINAL BINS SMOOTHED” is always 0. This is because the smoothing algorithm has not been implemented yet, but this field is in the SPD product as a placeholder.

On page 2, the SPD displays a copy of the bias table ingested from AWIPS Bias table. Currently, the PPS uses a “canned” (i.e. non real-time) bias table. Each bias value is computed by dividing the average gage value by the average radar value.

SPD is a stand-alone tabular alphanumeric product, so the symbology block and graphic alphanumeric block do not apply to SPD.

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

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

[Note: a Halfword 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	82	N/A	
02	Date of Message	INT*2	Julian Date	1 to 32,767	1	
03-04	Time of Message	INT*4	Seconds	0 to 86,399	1	
05-06	Length of Message	INT*4	N/A	2834	1	
07	Source ID	INT*2	N/A	0 to 999	1	
08	Destination ID	INT*2	N/A	0 to 999	1	
09	Number of Blocks	INT*2	N/A	3	1	

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):
Section 28.2.2 “Color Level Code Table”

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
10	Block Divider	INT*2	NA	-1	N/A	
11-12	Latitude of Radar	INT*4	Degrees	-90 to +90	0.001	
13-14	Longitude of Radar	INT*4	Degrees	-180 to +180	0.001	
15	Height of Radar	INT*2	Feet	-100 to +11000	1	
16	Product Code	INT*2	N/A	82	N/A	
17	Operational Mode	INT*2	N/A	0 to 2	N/A	
18	Volume Coverage Pattern	INT*2	N/A	1 to 767	N/A	

HALF WOR D	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
19	Sequence Number	INT*2	N/A	-13, 0 to 32767	1	
20	Volume Scan Number	INT*2	N/A	1 to 80	1	
21	Volume Scan Date	INT*2	Julian Date	1 to 32767	1	
22-23	Volume Scan Start Time	INT*4	Seconds GMT	0 to 86399	1	
24	Product Generation Date	INT*2	Julian Date	1 to 32767	1	
25-26	Product Generation Time	INT*4	Seconds	0 to 86399	1	
27	Not used	INT*2		0		
28	Not used	INT*2		0		
29	Elevation Number	INT*2	N/A	0 to 20	1	
30	Not used	INT*2	N/A	0	N/A	
31	Not used	INT*2	N/A	0	N/A	
32	Not used	INT*2	N/A	0	N/A	
33	Not used	INT*2	N/A	0	N/A	
34	Not used	INT*2	N/A	0	N/A	
35	Not used	INT*2	N/A	0	N/A	
36	Not used	INT*2	N/A	0	N/A	
37	Not used	INT*2	N/A	0	N/A	
38	Not used	INT*2	N/A	0	N/A	
39	Not used	INT*2	N/A	0	N/A	
40	Not used	INT*2	N/A	0	N/A	
41	Not used	INT*2	N/A	0	N/A	
42	Not used	INT*2	N/A	0	N/A	
43	Not used	INT*2	N/A	0	N/A	
44	Not used	INT*2	N/A	0	N/A	
45	Not used	INT*2	N/A	0	N/A	
46	Not used Not used	INT*2	N/A	0	N/A	
47	Not used Not used	INT*2	N/A	0	N/A	
48	Not used Not used	INT*2	N/A	0	N/A	
49	Not used Not used	INT*2	N/A	0	N/A	
50	Not used Not used	INT*2	N/A	0	N/A	
51	Not used	INT*2	N/A	0	N/A	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION/ ACCURACY	NOTES
	Not used					
52	Not used	INT*2	N/A	0	N/A	
53	Not used	INT*2	N/A	0	N/A	
54	Version	INT*1	N/A	1 to 2	1	
54	Spot Blank	INT*1	N/A	0 to 1	1	
55-56	Offset to Symbology	INT*4	Halfwords	0	N/A	NOTE: SPD does not have a Symbology Block so the value in this field is not used
57-58	Offset to Graphic	INT*4	Halfwords	0	1	
59-60	Offset to Tabular	INT*4	Halfwords	60	1	

[PRODUCT SYMBOLOGY BLOCK IS NOT APPLICABLE FOR SPD]

[GRAPHIC ALPHANUMERIC BLOCK IS NOT APPLICABLE FOR SPD]

STAND-ALONE TABULAR ALPHANUMERIC BLOCK (TAB) IS COMPLETELY ALPHANUMERIC PRODUCT

References

2620001F (Class I Users ICD):

Section 3.2.1.4 “Tabular Alphanumeric Block”

Fig 3-3 “Message Header”

Fig 3-6 “Graphic Product Message” Sheet 7 and Sheet 10

Fig 3-16 Stand-Alone Tabular Alphanumeric Product Message

Fig 3-28 Sheet 7

26200003F (Product Spec ICD):

Appendix C, Format IX “Precipitation Adaptation Data”, Sheets 1-4

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
61	Block Divider	INT*2	N/A	-1	N/A	
62	Number of Pages	INT*2	N/A	2	1	
63	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
64-103	Character Data	CHAR* 80	8 Bit ASCII	SUPPLEMENTAL PRECIPITATION DATA - RDA ID XXX MM/DD/YY HH:MM (space padded)	N/A	
104	Number of Characters	INT*2	N/A	80	1	
105-144	Character Data	CHAR* 80	8 Bit ASCII	' ' (Blank Line)	N/A	
145	Number of Characters	INT*2	N/A	80	1	
146-185	Character Data	CHAR* 80	8 Bit ASCII	VOLUME COVERAGE PATTERN = XXX MODE = X TIME CONT: XXXX (space padded)	N/A	CCR# NA04-28102 CCR# NA04-32201
186	Number of Characters	INT*2	N/A	80	1	
187-226	Character Data	CHAR	8 Bit ASCII	' ' (Blank Line)	N/A	
227	Number of Characters	INT*2	N/A	80	1	
228-267	Character Data	CHAR* 80	8 Bit ASCII	GAGE BIAS APPLIED - XXX (space padded) (range from YES to NO)	N/A	
268	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
269-308	Character Data	CHAR*80	8 Bit ASCII	BIAS ESTIMATE - XXXXX.XX (space padded) (range from 0.01 to 100.00, default 1.00)	0.01	Correction to original description (no format change)
309	Number of Characters	INT*2	N/A	80	1	
310-349	Character Data	CHAR*80	8 Bit ASCII	EFFECTIVE # G/R PAIRS - XXXXX.XX (space padded) (range from 0.00 to 999.99, default 0.00)	0.01	Correction to original description (no format change)
350	Number of Characters	INT*2	N/A	80	1	
351-390	Character Data	CHAR*80	8 Bit ASCII	MEMORY SPAN (HOURS) - XXXXX.XX (space padded) (range from 0.001 to 10.**7, default 1.00)	0.01	Correction to original description (no format change)
391	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
392-431	Character Data	CHAR* 80	8 Bit ASCII	DATE/TIME LAST BIAS UPDATE – MM/DD/YY HH:MM (space padded)	N/A	
432	Number of Characters	INT*2	N/A	80	1	
433-472	Character Data	CHAR* 80	8 Bit ASCII	TOTAL NO. OF BLOCKAGE BINS REJECTED - XXXXXXXXX (space padded) (range from 0 to 82800, default 0)	1	
473	Number of Characters	INT*2	N/A	80	1	
474-513	Character Data	CHAR* 80	8 Bit ASCII	CLUTTER BINS REJECTED - XXXXXXXXX (space padded) (range from 0 to 82800)	1	
514	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
515-554	Character Data	CHAR* 80	8 Bit ASCII	FINAL BINS SMOOTHED - XXXXXXXXXX (space padded) (range from 0 to 82800)	1	
555	Number of Characters	INT*2	N/A	80	1	From Fig 3-6 Sheet 7
556-595	Character Data	CHAR* 80	8 Bit ASCII	HYBRID SCAN PERCENT BINS FILLED - XXXXX.XX (space padded) (range from 90.00 to 100.00)	0.10	
596	Number of Characters	INT*2	N/A	80	1	
597-636	Character Data	CHAR* 80	8 Bit ASCII	HIGHEST ELEV. USED (DEG) - XXXXX.XX (space padded) (range from 0.00 to 19.50)	0.01	
637	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
638-677	Character Data	CHAR* 80	8 Bit ASCII	TOTAL RAIN AREA (KM**2) - XXXXXX.X (space padded) (range from 0.0 to 166190.3)	0.1	CCR #NA04- 27811
678	Number of Characters	INT*2	N/A	80	1	
679-718	Character Data	CHAR* 80	8 Bit ASCII	' ' (Blank Line)	N/A	
719	Number of Characters	INT*2	N/A	80	1	
720-759	Character Data	CHAR* 80	8 Bit ASCII	MISSING PERIOD: MM/DD/YY HH:MM MM/DD/YY HH:MM (space padded) (range from NONE to [Missing beginning MM/DD/YY HH:MM to ending time MM/DD/YY HH:MM])	N/A	
760	End of Page Flag	INT*2	N/A	-1	N/A	
761	Number of Characters	INT*2	N/A	80	1	
762-801	Character Data	CHAR* 80	8 Bit ASCII	GAGE- RADAR MEAN FIELD BIAS TABLE	N/A	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
802	Number of Characters	INT*2	N/A	80	1	
803-842	Character Data	CHAR*80	8 Bit ASCII	‘ ‘ (Blank Line)	N/A	
843	Number of Characters	INT*2	N/A	80	1	
844-883	Character Data	CHAR*80	8 Bit ASCII	LAST BIAS UPDATE TIME: MM/DD/YY HH:MM BIAS APPLIED ? YES/NO	N/A	
884	Number of Characters	INT*2	N/A	80	1	
885-924	Character Data	CHAR*80	8 Bit ASCII	‘ ‘ (Blank Line)	N/A	
925	Number of Characters	INT*2	N/A	80	1	
926-965	Character Data	CHAR*80	8 Bit ASCII	MEMORY SPAN EFFECTIVE NO. AVG. GAGE AVG. RADAR MEAN FIELD	N/A	
966	Number of Characters	INT*2	N/A	80	1	
967-1006	Character Data	CHAR*80	8 Bit ASCII	(HOURS) G-R PAIRS VALUE (MM) VALUE (MM) BIAS	N/A	
1007	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
1008-1047	Row 1: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 1: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 1: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 1: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 1: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1048	Number of Characters	INT*2	N/A	80	1	
1049-1088	Row 2: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 2: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 2: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
	Row 2: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 2: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1089	Number of Characters	INT*2	N/A	80	1	
1090-1129	Row 3: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 3: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 3: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 3: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 3: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1130	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
1131-1170	Row 4: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 4: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 4: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 4: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 4: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1171	Number of Characters	INT*2	N/A	80	1	
1172-1211	Row 5: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 5: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 5: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
	Row 5: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 5: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1212	Number of Characters	INT*2	N/A	80	1	
1213- 1252	Row 6: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 6: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 6: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 6: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 6: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1253	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
1254-1293	Row 7: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 7: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 7: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 7: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 7: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1294	Number of Characters	INT*2	N/A	80	1	
1295-1334	Row 8: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 8: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 8: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
	Row 8: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 8: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1335	Number of Characters	INT*2	N/A	80	1	
1336- 1375	Row 9: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXX X.XXX” Range: 0.001 to 10.**7	0.001	
	Row 9: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 9: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 9: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXX XXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 9: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXX XXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1376	Number of Characters	INT*2	N/A	80	1	

HALF WORD	FIELDNAME	TYPE	UNITS	VALUE	PRECISION / ACCURACY	NOTES
1377-1416	Row 10: Memory Span (Hours)	CHAR* 12	HRS	“XXXXXXXXX.XXX” Range: 0.001 to 10.**7	0.001	
	Row 10: EFFECTIVE NO. G-R Pairs	CHAR* 16	N/A	“XXXXXXXXXXXXXX.XX X” Range: 0.000 to 999.999	0.001	
	Row 10: AVG. GAGE VALUE (MM)	CHAR* 16	MM	“XXXXXXXXXXXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 10: AVG. Row1: RADAR VALUE (MM)	CHAR* 16	MM	“XXXXXXXXXXXXXX.XX X” Range: 0.000 to 400.000	0.001	
	Row 10: MEAN FIELD BIAS	CHAR* 16	N/A	“XXXXXXXXXXXXXX.XX X” (4 space padded) Range: 0.001 to 100.0	0.001	
1417	End of Page Flag	INT*2	N/A	-1	N/A	

The following is abstracted from the generated product to demonstrate the content of the Stand-Alone TAB.

Note: Some field values in the bias portion are derived from the AWIPS bias table on the second page.

CVT using variable CV_ORPG_BUILD to set ORPG Build to 6

```

*** ORPG DATABASE PRODUCT LOAD UTILITY ***
-> Number of Products Available=5417
-> Message ID=5264
-> Product Info: LBuffer# 109 MSGLEN 002930 VOLNUM 154 ELEV 06
    
```

Stand Alone Tabular Alphanumeric Product
Block Divider = -1

Number of Pages: 2

Stand Alone Tabular Alphanumeric Product - Page: 1
SUPPLEMENTAL PRECIPITATION DATA - RDA ID 999 10/09/03 13:03

VOLUME COVERAGE PATTERN = 121 MODE = A

GAGE BIAS APPLIED	-	YES
BIAS ESTIMATE	-	1.25
EFFECTIVE # G/R PAIRS	-	13.49
MEMORY SPAN (HOURS)	-	168.01
DATE/TIME LAST BIAS UPDATE	-	08/22/98 16:12
TOTAL NO. OF BLOCKAGE BINS REJECTED	-	0
CLUTTER BINS REJECTED	-	12035
FINAL BINS SMOOTHED	-	0
HYBRID SCAN PERCENT BINS FILLED	-	99.71
HIGHEST ELEV. USED (DEG)	-	6.00
TOTAL RAIN AREA (KM**2)	-	16870.0

MISSING PERIOD: 10/09/03 02:03 10/09/03 00:03

Stand Alone Tabular Alphanumeric Product - Page: 2
GAGE-RADAR MEAN FIELD BIAS TABLE

LAST BIAS UPDATE TIME: 08/22/98 16:12 BIAS APPLIED ? YES

MEMORY SPAN (HOURS)	EFFECTIVE NO. G-R PAIRS	AVG. GAGE VALUE (MM)	AVG. RADAR VALUE (MM)	MEAN FIELD BIAS
0.001	0.000	1.016	1.090	0.932
1.000	0.000	1.863	1.538	1.211
2.000	0.000	2.648	1.933	1.370
3.001	0.000	2.825	2.032	1.391
4.998	0.000	2.908	2.089	1.392
10.004	0.000	2.935	2.118	1.386
168.006	13.494	2.627	2.094	1.255
719.819	126.212	2.417	2.104	1.149
2160.295	212.154	2.381	2.109	1.129
9999044.000	277.982	2.365	2.112	1.120

SATAP Message Complete
program complete