APPENDIX F

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Example No. 1 - Vector Graphic Product Structure

		NOTES
Mode 01, Submode 01	Product Identification Block	1
Mode 04, Submode 20	Vector Graphic Product Definition Block	2
Mode 01, Submode 04	Define Plot Parameters Block	3
Mode 04, Submode 02	Relative Vectors Block for Temperature Contour 1	4

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Mode 04, Submode 02	Relative Vectors Block for Temperature Contour n	4
Mode 05, Submode 03	Line Labels Character Block for Temperature Contours 1-n	5
Mode 01, Submode 04	Define Plot Parameters Block	6
Mode 04, Submode 02	Relative Vectors Block for Pressure Contour 1	7

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Mode 04, Submode 02	Relative Vectors Block for Pressure Contour m	7
Mode 05, Submode 03	Line Labels Character Block for Pressure Contours 1-m	8
Mode 01, Submode 04	Define Plot Parameters Block	9
Mode 04, Submode 02	Relative Vectors Block for Cold Front	10

Example No. 1 (Cont.). Vector Graphic Product Structure

		NOTES
Mode 05, Submode 03	Line Labels Character Block for Cold Front	11
Mode 01, Submode 04	Define Plot Parameters Block	12
Mode 05, Submode 06	Wind Barbs Data Plot	13
Mode 01, Submode 04	Define Plot Parameters Block	14
Mode 05, Submode 02	Data Plot Block for Station 1	15

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Mode 05, Submode 02	Data Plot Block for Station l	15
Mode 01, Submode 04	Define Plot Parameters Block	16
Mode 05, Submode 05	Weather Symbols Block	17
Mode 01, Submode 04	Define Plot Parameters Block	18
Mode 05, Submode 01	Alphanumeric Characters Block for line 1	19

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Mode 05, Submode 01	Alphanumeric Characters Block for line k	19
Mode 01, Submode 02	End Of Product Block	20

Example No. 1 (Cont.). Vector Graphic Product Structure

NOTES:

1. *Identifies the product.*
2. *Gives product related information.*
3. *Set up parameters for plotting temperature contours, e.g., line character - dashed, line color - red.*
4. *Transmits vectors defining temperature contours 1-n.*
5. *Transmits labels to be associated with temperature contours.*
6. *Set up parameters for plotting pressure contours, e.g., line character - solid, line color - blue.*
7. *Transmits vectors defining pressure contours 1-m.*
8. *Transmits labels to be associated with pressure contours.*
9. *Set up parameters for plotting cold front, e.g., line character - symbolic, line color - blue.*
10. *Transmits vectors defining cold front line.*
11. *Transmits labels to be associated with cold front.*
12. *Set up parameters for plotting wind barbs, e.g., line character - reset, line color - green.*
13. *Transmits wind barbs.*
14. *Set up parameters for plotting station plots, e.g., line color - orange.*
15. *Transmits data plots for stations 1-l.*
16. *Set up parameters for plotting weather symbols, e.g., line color - red.*
17. *Transmits weather symbols to be plotted.*
18. *Set up parameters for plotting product legend, e.g., line color - black.*
19. *Transmits data for product legend.*
20. *Termination for product.*

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Example No. 2 - Alphanumeric Product

MODE 01 SUBMODE 01 PRODUCT IDENTIFICATION BLOCK	PRODUCT IDENTIFICATION BLOCK	01	LENGTH
		001	001
		K	A
		W	N
		U	000
		PRODUCT IDENTIFIER "AA" PLUS MANOP NUMBER (10 bytes)	
		FILE TIME (6 bytes)	
MODE 05 SUBMODE 04 ALPHANUMERIC DATA BLOCK #1	MANOP HEADER	305	004
		S	A
		U	S
		2	4
		K	A
		W	N
		2	2
		1	2
		0	0
	MESSAGE 1 SUBSET IDENTIFIER MESSAGE 1 TEXT	ASCII CR	ASCII LF
		K	0
		F	F
		ASCII SPACE	CHR 1
		CHR 2	CHR 3
		. .	
	MESSAGE 2 SUBSET IDENTIFIER	CHR L-1	CHR L
		ASCII RS	ASCII CR
		ASCII LF	K
		B	L
		V	ASCII SPACE
		CHR 1	CHR 2
		. .	
	END OF TEXT FOR MESSAGE K	CHR M	ASCII RS
		ASCII CR	ASCII LF
		ASCII ETB	ASCII SPACE

NOTE: New Mode 05 Submode 04 required because next message would cause block length to exceed 4096 characters.

Example No. 2 (Cont.) - Alphanumeric Product

MODE 05 SUBMODE 04 ALPHANUMERIC DATA BLOCK #2	MESSAGE K+1 SUBSET IDENTIFIER	305	004
		K	B
		A	B
		ASCII SPACE	CHR 1
		. . .	
	END OF TEST FOR MESSAGE J	CHR N	ASCII RS
		ASCII CR	ASCII LF
		ASCII ETX	ASCII SPACE
MODE 01 SUBMODE 02 END OF PRODUCT BLOCK		301	002

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Example No. 3 Surface Formatted Binary Product

MODE 01 SUBMODE 01
PRODUCT IDENTIFICATION BLOCK

PRODUCT IDENTIFICATION BLOCK

01	LENGTH
001	001
K	G
W	C
U	000
G	F
S	A
U	S
0	1
ASCII SPACE	ASCII SPACE
1982	
2	5
12	00

MODE 03 SUBMODE 21
FORMATTED BINARY DATA DESCRIPTION BLOCK

FIXED DATA DESCRIPTORS

01	LENGTH
003	021
K=# OF ELEMENTS PER SET	# OF BYTES IN ELEMENT SET
M = # OF ELEMENT SETS	

ELEMENT #1 DESCRIPTION

C	A
L	ASCII SPACE
4	4
0	23 (octal)
0	0
0	

ELEMENT #2 DESCRIPTORS

P	P
P	ASCII SPACE
10 (octal)	2
0	7
1	-1
0	

.
.

ELEMENT #K DESCRIPTORS

W	W
1	ASCII SPACE
START BYTE	2
0	23 (octal)
0	0
0	

Example No. 3 (Cont.) - Surface Formatted Binary Product

MODE 03 SUBMODE 01
FORMATTED BINARY
DATA BLOCK #1

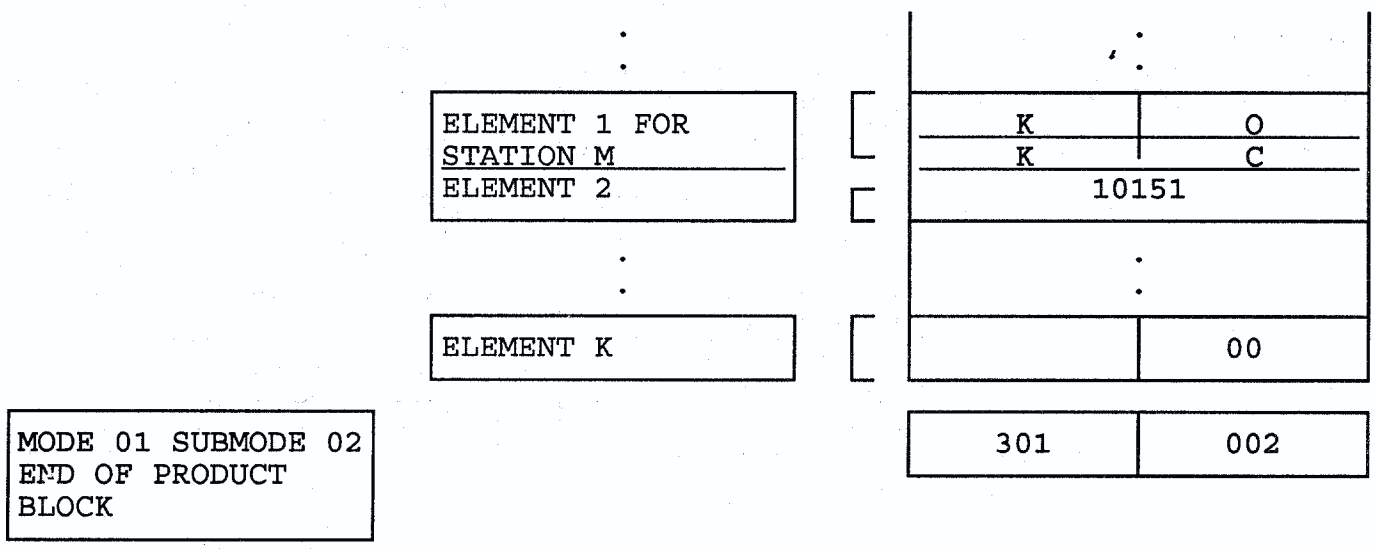
	01	LENGTH
	003	001
ELEMENT 1 FOR STATION 1	K	B
	L	V
ELEMENT 2	10241	
. .	. .	
ELEMENT K		17
ELEMENT 1 FOR STATION 2	K	B
	O	S
ELEMENT 2	10113	
. .	. .	
ELEMENT K		00
. .	. .	
ELEMENT 1 FOR STATION N	K	O
	F	F
ELEMENT 2	10264	
. .	. .	
ELEMENT K		93

Note: New Mode 03 Submode 01 required because next set of data would cause block length to exceed 4096 bytes.

MODE 03 SUBMODE 01
FORMATTED BINARY
DATA BLOCK #2

	01	LENGTH
	003	001
ELEMENT 1 FOR STATION N+1	K	S
	T	L
ELEMENT 2	10245	
. .	. .	
ELEMENT K		17
. .	. .	

Example No. 3 (Cont.) - Surface Formatted Binary Product



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Example No. 4 Upper Air Formatted Binary Product

MODE 01 SUBMODE 01 PRODUCT IDENTIFICATION BLOCK

PRODUCT IDENTIFICATION BLOCK

01	LENGTH
001	001
K	G
W	C
U	000
G	F
U	W
U	S
0	4
ASCII SPACE	ASCII SPACE
1982	
6	20
12	00

MODE 03 SUBMODE 20 PRODUCT DEFINITION BLOCK

01	LENGTH
003	020
ASCII SPACE	ASCII SPACE
ASCII SPACE	ASCII SPACE
72	
202	

MODE 03 SUBMODE 21 FORMATTED BINARY DATA DESCRIPTION BLOCK

FIXED DATA DESCRIPTORS

ELEMENT #1 DESCRIPTORS

ELEMENT #2 DESCRIPTORS

ELEMENT #3 DESCRIPTORS

01	LENGTH
003	021
6	10
40	
P	R
S	ASCII SPACE
4	2
0	7
1	0
0	
G	P
H	ASCII SPACE
6	2
0	13 (octal)
1	1
0	
T	M
P	ASCII SPACE
8	2
0	2
1	-1
0	

Example No. 4 (Cont.) Upper Air Formatted Binary Product

ELEMENT #4 DESCRIPTORS	D	P	
	D	ASCII SPACE	
	10	2	
	0	2	
	1	-1	
	0		
ELEMENT #5 DESCRIPTORS	S	P	
	D	ASCII SPACE	
	12	1	
	0	5	
	1	0	
	0		
ELEMENT #6 DESCRIPTORS	D	I	
	R	ASCII SPACE	
	13	1	
	0	37 (octal)	
	1	1	
	0		
MODE 03 SUBMODE 01 FORMATTED BINARY DATA BLOCK #1	01	LENGTH	
	003	001	
LEVEL 1	980		
	0		
	215		
	25		
	8	27	
ELEMENT 2	900		
	80		
	182		
	50		
	15	30	
. . .	. . .		
ELEMENT 40	100		
	1620		
	-400		
	(all binary ones)		
	85	03	

Example No. 4 (Cont.) Upper Air Formatted Binary Product

MODE 03 SUBMODE 21 FORMATTED BINARY DATA DESCRIPTION BLOCK

REPORTED SIGNIFICANT LEVEL DATA

01	LENGTH
003	021
3	6
1	
M	W
1	ASCII SPACE
4	2
0	13 (octal)
1	1
0	
T	P
1	ASCII SPACE
6	2
0	13 (octal)
1	1
0	
P	P
W	ASCII SPACE
8	2
0	51 (octal)
1	-2
0	

MODE 03 SUBMODE 01 FORMATTED BINARY DATA BLOCK #1

ELEMENT #1
ELEMENT #2
ELEMENT #3

01	LENGTH
003	001
885	
1176	
255	

MODE 01 SUBMODE 02 END OF PRODUCT BLOCK

301	002

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Example No. 5 Unpacked Gridded Data Product

MODE 01 SUBMODE 01
PRODUCT
IDENTIFICATION
BLOCK

PRODUCT
IDENTIFICATION
BLOCK

01	LENGTH
001	001
K	G
W	C
U	000
G	X
P	G
N	A
4	5
T	A
FILE TIME (6 BYTES)	

MODE 07 SUBMODE 20
GRIDDED PRODUCT
DEFINITION
BLOCK

01	LENGTH
007	020
011	141
SCALE FACTOR	
001	002
ZERO FILLED	ZERO FILLED
ZERO FILLED	
ZERO FILLED	
NUMBER OF COLUMNS (M)	
NUMBER OF ROWS (L)	
REFERENCE I COORDINATE	
REFERENCE J COORDINATE	
BEGIN VALID PERIOD (4 BYTES)	
END VALID PERIOD (4 BYTES)	
I POLE	
J POLE	
RE/D	
LONGITUDE X	
002	002

MODE 03 SUBMODE 21
FORMATTED BINARY
& UNPACKED UGDF
DATA DESCRIPTION
BLOCK

01	LENGTH
003	021
001	002
# OF ELEMENT SETS (MxL)	
T	M
P	ASCII SPACE
004	002
ZERO FILLED	002
001	-001
000	

Example No. 5 (Cont.) Unpacked Gridded Data Product

MODE 03 SUBMODE 01 FORMATTED BINARY & UNPACKED UGDF DATA BLOCK 1	01 LENGTH 003 | 001 TEMP POINT I(1)/J(1) TEMP POINT I(2)/J(1) . . TMP FOR POINT I(N)/J(K)
MODE 03 SUBMODE 01 FORMATTED BINARY & UNPACKED UGDF DATA BLOCK 2	01 LENGTH 003 | 001 TEMP POINT I(N+1)/J(K) . . . . . . TEMP POINT I(M)/J(L)
. . MODE 03 SUBMODE 01 FORMATTED BINARY & UNPACKED UGDF DATA BLOCK 2	
MODE 01 SUBMODE 02 END OF PRODUCT BLOCK	301 | 002

Example No. 6 Plot Data Block Using Plot Process Code 2

MODE 05 SUBMODE 02
ALPHANUMERIC DATA
BLOCK FOR PRODUCT
REQUEST

01 LENGTH	
005	002
B R CHR SIZ	2
M COORD (1) = ROT ANGLE	
N COORD (1) = CHAR JUST	
CHARACT SET	CHR 2
CHR 3	CHR 4
M COORDINATE (2)	
N COORDINATE (2)	
CHR 1	CHR 2
. .	
CHR n-1	CHR n
M COORDINATE (n)	
N COORDINATE (n)	
CHR 1	CHR 2
. .	
CHR n-1	CHR n
CHECKSUM	

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Example No. 7 Satellite Image Product

SAMPLE GEOSYNCHRONOUS IMAGE PRODUCT	SAMPLE POLAR ORBITER IMAGE PRODUCT
MODE 01 SUBMODE 01 PRODUCT ID BLOCK	MODE 01 SUBMODE 01 PRODUCT ID BLOCK
MODE 6 SUBMODE 40 POLAR/GEOSYNCHRONOUS IMAGE PRODUCT DEFINITION BLOCK	MODE 6 SUBMODE 40 POLAR/GEOSYNCHRONOUS IMAGE PRODUCT DEFINITION BLOCK
MODE 6 SUBMODE 41 GEOSYNCHRONOUS IMAGE DATA DESCRIPTION BLOCK	MODE 6 SUBMODE 42 POLAR IMAGE DATA DESCRIPTION BLOCK
MODE 1 SUBMODE 05 DEFINE DATAWIDTH/ FIELDWIDTH BLOCK	MODE 1 SUBMODE 05 DEFINE DATAWIDTH/ FIELDWIDTH BLOCK
MODE 6 SUBMODE 01 RASTER SCAN DATA BLOCK	MODE 6 SUBMODE 01 RASTER SCAN DATA BLOCK
MODE 6 SUBMODE 01 RASTER SCAN DATA BLOCK	MODE 6 SUBMODE 01 RASTER SCAN DATA BLOCK
. . .	. . .
MODE 01 SUBMODE 02 END OF PRODUCT BLOCK	MODE 01 SUBMODE 02 END OF PRODUCT BLOCK

Example No. 7 (Cont.) Satellite Image Product

SAMPLE GEOSYNCHRONOUS IMAGE PRODUCT WITH COLOR PALETTE INFORMATION	SAMPLE POLAR ORBITER IMAGE PRODUCT WITH COLOR PALETTE INFORMATION
MODE 01 SUBMODE 01 PRODUCT ID BLOCK	MODE 01 SUBMODE 01 PRODUCT ID BLOCK
MODE 06 SUBMODE 40 POLAR/GEOSYNCHRONOUS IMAGE PRODUCT DEFINITION BLOCK	MODE 06 SUBMODE 40 POLAR/GEOSYNCHRONOUS IMAGE PRODUCT DEFINITION BLOCK
MODE 06 SUBMODE 41 GEOSYNCHRONOUS IMAGE DATA DESCRIPTION BLOCK	MODE 06 SUBMODE 42 POLAR IMAGE DATA DESCRIPTION BLOCK
MODE 01 SUBMODE 05 DEFINE DATAWIDTH/ FIELDWIDTH BLOCK	MODE 01 SUBMODE 05 DEFINE DATAWIDTH/ FIELDWIDTH BLOCK
MODE 01 SUBMODE 12 DEFINE COLOR PALETTE BLOCK	MODE 01 SUBMODE 12 DEFINE COLOR PALETTE BLOCK
MODE 06 SUBMODE 01 RASTER SCAN DATA BLOCK	MODE 06 SUBMODE 01 RASTER SCAN DATA BLOCK
MODE 06 SUBMODE 01 RASTER SCAN DATA BLOCK	MODE 06 SUBMODE 01 RASTER SCAN DATA BLOCK
. . .	. . .
MODE 01 SUBMODE 02 END OF PRODUCT BLOCK	MODE 01 SUBMODE 02 END OF PRODUCT BLOCK

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