JOB SHEET JS2-3-23
CROSS SECTION PRODUCT

INTRODUCTION

Cross Sections are made from any of the three base data products. Cross Section products are useful in analyzing storm severity and have other applications. Remember only an Associated PUP can request the RPG-generated Cross Section Products.

Cross Section Production takes place in two steps:

Step 1. Define a line for Cross Section creation
- a. It must be within 124 nm of the RDA
- b. It can only be 124 nm long

Step 2. Choose and create a Cross Section Product along the line.

Take care when selecting a cross section line as the RPG generates it from the most recent full volume scan in the RPG's data base. Thus, a cross section may not be generated as planned. Two ways to ensure the cross section is generated in the desired volume scan are:

1. Select the line using a volume product such as Composite Reflectivity or VIL.

2. Select **PRODUCT BACK** when you use a non-volume scan product before defining the cross section line.

Once the line is defined, go to step 2 and generate a Cross Section of Reflectivity, Velocity, or Spectrum Width along that line.

OBJECTIVE

Use the Graphic Tablet to define, request and display a Cross Section Product.

REFERENCES

NWS EHB 6-531-1, USERS GUIDE: PUP/RPGOP, Sections 4.1.2.2, 4.1.2.4, and 4.5.2.

PROCEDURE

Graphic Tablet

STEP 1 - DEFINE A LINE

1. Display a 0.54 nm, 16 data level Composite Reflectivity Product (left screen).

2. Mark two end points through a storm of interest. This defines the line for construction of a Cross Section product. To do this:

    a. First press the left puck button at one desired point, and then
    b. Press the left button again at the other point.

3. Select **CROSS SECTION SELECT** (left button), and **check the status line**.

    - This "enters" the points, selected in Step 2, as the new *default parameters*. These points are used to generate all Cross Section products until new points are defined.

4. Select the **CURRENT CROSS SECTION** overlay (left button).

- This overlay displays the cross section line between the points selected in step 3.

- If you want a different line, repeat steps 2 and 3. If the original line is still displayed you must delete it from the screen (select **MAP OVERLAY DELETE**, then **CURRENT CROSS SECTION**) before performing step 4.

GRAPHIC TABLET

KEYBOARD | SYMBOLS | USER FUNCTIONS

EDIT COMMANDS

EDIT ANNOT	EDIT ALERT AREA	DELETE ALERT BOX		ADD ALERT BOX		DEL RCTL	ADD RCTL		EDIT RCM PART A		EDIT RCM PART C		57 25	58 26	59 27	60 28	61 29	62 30	63 31	64 32	26	27	28	29	30
EDIT MAP	HIGH DETAIL	! 1	@ 2	# 3	$ 4	% 5	^ 6	& 7	* 8	(9	) 0	+ =	BACK SPACE	51 19	52 20	53 21	54 22	55 23	56 24	21	22	23	24	25
START ERASE	END ERASE	Q	W	E	R	T	Y	U	I	O	P	– -	RET	45 13	46 14	47 15	48 16	49 17	50 18	16	17	18	19	20
START LINE	END LINE	A	S	D	F	G	H	J	K	L	: ;	" '	UPPER SHIFT	39 7	40 8	41 9	42 10	43 11	44 12	11	12	13	14	15
CANCEL EDIT	EXIT EDIT & SAVE	Z	X	C	V	B	N	M	< ,	> .	? /	SPACE	LOWER SHIFT	33 1	34 2	35 3	36 4	37 5	38 6	6	7	8	9	10

PARAMETERS

AZRAN SELECT																					UF1	2	3	4	5
CROSS SECTION SELECT																					CANCEL UF	SPEED DOWN	SPEED UP	FRAME BACK	FRAME FORWARD
RPG																					TIME LAPSE RES/HLT	TIME LAPSE 1	TIME LAPSE 2	TIME LAPSE 3	CONTINUOUS LOOP
TIME																					AUTO RES/HLT	QUAD 1	QUAD 2	RECENTER MAG 1X	RECENTER MAG 2X
DATE																					FULL SCREEN	QUAD 3	QUAD 4	RECENTER MAG 4X	RECENTER MAG 8X
REPEAT COUNT																					CLEAR SCREEN/ QUAD	FILTER	COMBINE DOWN	COMBINE UP	CURSOR HOME DEFINE
END HOUR																					BLINK COLOR LEVEL	RESTORE DISPLAYED PRODUCT	GRAY/COLOR SCALE	CURSOR AUTO/ MANUAL	CURSOR LINK/UNLINK
SLICE/ DURATION																					ALL QUADRANTS	HARD COPY	PRESET CENTER	CURSOR HOME	AZRAN R/ LAT LON/ AZRAN H
CENTER AZIMUTH																					ACK ALERT	CELL TRENDS	VR/SHEAR DISPLAY	CURRENT CROSS SECTION CR	ANNOT'S AN
CENTER RANGE																					HAIL HI	MESO M	TVS TV	STORM TRACK ST	ATTRIBUTE AT
STORM DIRECTION																					ALERT AREA 1 A1	ALERT AREA 2 A2	SWP SW		COMBINED SHEAR CONTOUR SC
STORM SPEED																					OVERLAYS OFF/ON	OVERLAYS ERASE	MAP OVERLAY DELETE	STOP BLINK	PAGE ATTRIBUTE
CONTOUR INTERVAL																									
ALL/ONE SWA																									
MATCH PARA-METERS																									
DEFAULT PARA-METERS																									

DISPLAY FUNCTIONS

PRODUCT OVERLAYS

ELEVATION UP	LOW PRIORITY	DISPLAY PRODUCT	BASE REF R	COMP REF CR	COMP REF CONTOUR CRC	ECHO TOPS COUNTOUR ETC	REF CROSS SECTION RCS	ACK PRODUCT	DISPLAY QUEUED PRODUCT	PRODUCT OFF/ON	MAPS OFF/ON	MAPS ERASE	MAPS FOREGD/ BACKGD	CANCEL HELP
ELEVATION DOWN	REQUEST MAPS		BASE VEL V	STM REL VEL REGION SRR	STM REL VEL MAP SRM	ECHO TOPS ET	VEL CROSS SECTION VCS	PRODUCT BACK	PRODUCT FORWARD	TRANSFER SCREEN PRODUCT	STATE LAT/LON ST	COUNTY CO	HIGHWAY HY	RADAR SITES RS
LOWEST ELEVATION	BLANK TIME DATE	SEND RPG REQ	BASE SPECTRUM WIDTH SW	COMBINED SHEAR CS	COMBINED SHEAR CONTOUR CSC	COMBINED MOMENT CM	SPECTRUM WIDTH CROSS SECTION SCS	NEXRAD UNIT STATUS	CLEAR QUEUE	REDISPLAY LAST PRODUCT	RIVER RV	RIVER BASIN RB	RDA	RANGE RING
DED ASSOC RPG	.13 NM	8 LEVEL	ONE HOUR PRECIP OHP	THREE HOUR PRECIP THP	STORM TOTAL PRECIP STP	USER SELECTABLE PRECIP USP	STORM TRACK STI	TORNADO VORTEX SIGNATURE TVS	RADAR CODED MESSAGE RCM	ALL SWA PRODUCTS	WARNING AREA WA	MIL OPN AREA MO	POLAR GRID	LFM GRID LF
DIAL-UP ASSOC RPG	.27 NM	16 LEVEL	MESO M	SEVERE WEATHER PROBABILITY SWP	WEAK ECHO REGION WER	VERTICALLY INTEGRATED LIQUID VIL	VELOCITY AZIMUTH DISPLAY VAD	HAIL HI	SWA REF SWR	SWA VEL/SRR SWV/SWR	RSTRCTD AREA RA	PRHBTD AREA PA	AIRWAY HIGH AH	CITY CI
RPG 1	.54 NM	HIGH ALT	LAYER COMP REF MAX LRM	LAYER COMP TURB MAX LTM	LAYER COMP REF AVG LRA	LAYER COMP TURB AVG LTA	VAD WIND PROFILE VWP		SWA SPECTRUM WIDTH SWW	SWA SHEAR SWS	NAVAID NA	AIRPORT AP	AIRWAY LOW AL	COUNTY NAMES CN
RPG 2	1.1 NM	MID ALT												
RPG 3	2.2 NM	LOW ALT												

1 2a 2b 3 4

PARAMETERS | PRODUCTS | BACKGROUND MAPS

STEP 2 - CREATE A CROSS SECTION BASED ON THE SELECTED POINTS

5. Select **REF CROSS SECTION** (right button).

- The last Reflectivity Cross Section created displays.

- If a Reflectivity Cross Section is not in your data base, the Pick-A-Product menu displays. Note the default point positions show P1 = 0 Deg 0 Nm and P2 = 90 Deg 124 Nm.

6. Select **DEFAULT PARAMETERS** (right button).

- This loads your selected points (step 3) in P1 and P2. Compare point positions with the endpoints of the overlay line on the left screen.

7. Select **SEND RPG REQUEST** (right button) and clear the right screen.

- The product is generated, at the RPG, and sent to your Associated PUP. It is stored in the PUP's data base and displays if a screen is clear.

- If the right screen is still clear the cross section displays on the right screen and you can compare it to the current cross section line location on the left screen.

8. Repeat steps 5 - 7, selecting **VEL CROSS SECTION** or **SPECTRUM WIDTH CROSS SECTION** instead of **REF CROSS SECTION**, and generate those cross section products using the same default parameters.

END

GRAPHIC TABLET

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DATE																					FULL SCREEN	QUAD 3	QUAD 4	RECENTER MAG 4X	RECENTER MAG 8X
REPEAT COUNT																					CLEAR SCREEN/ QUAD	FILTER	COMBINE DOWN	COMBINE UP	CURSOR HOME DEFINE
END HOUR																					BLINK COLOR LEVEL	RESTORE DISPLAYED PRODUCT	GRAY/COLOR SCALE	CURSOR AUTO/ MANUAL	CURSOR LINK/UNLINK
SLICE/ DURATION																					ALL QUADRANTS	HARD COPY	PRESET CENTER	CURSOR HOME	AZRAN R/ LAT LON/ AZRAN H
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RPG 2	1.1 NM	MID ALT												
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DISPLAY FUNCTIONS

PRODUCT OVERLAYS

6 7 8 5

PARAMETERS | PRODUCTS | BACKGROUND MAPS