

Homework: For Teacher Training, please try to complete the chart below before training day. Trust us, this will help you immensely to understand the material better. Instructions are on the pages that follow.

Date: _____

STORM Team Data Tracking Table: Proton Production

Column	A	B*	C	D	E	F	G	H*	I	J
Table Headings	UTC	Protons	Category	Descriptor	Change	Rate	Time to the Next Critical Level**	Projected 24 hour Proton Production	Category	Descriptor
Units	24 Hour Clock	Amount of Protons	From S1 to S5	From Minor to Extreme	Amount of Protons	Protons/Min	Minutes	Amount of Protons	From S1 to S5	From Minor to Extreme
Calculations	From Data	From Data	See Reference Guide	See Reference Guide	B – Previous B	B / 20 min	$G = \frac{\text{Critical Value} - B}{F}$	(F x 1440 min)	See Reference Guide	See Reference Guide
	15:00	45	S1	Minor	N/A	2	28	2,925	S3	Strong
	15:20	119	S2	Moderate	74	6	147	8,759	S3	Strong
	15:40	105	S2	Moderate	-14	5	128(N/A)	7,305	S3	Strong
	16:00	350								
	16:20	765								
	16:40	1,890								
	17:00	3,410								
	17:20									
	17:40									
	18:00									
	18:20									
	18:40									
	19:00									
	19:20									
	19:40									

* Graph this column

** You must constantly adjust your critical value based on current readings. For instance, if the storm is currently a category R2 or S2, your critical value will be the value for the next most dangerous level—R3 or S3. Remember, no calculations are necessary for Column G if the trend is not in the direction of criticality—that is, if the result in Column E is a negative number.

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STORM Team Data Tracking Table: X-Ray Production

Column	A	B*	C	D	E	F	G	H*	I	J
Table Headings	UTC	X-Rays	Category	Descriptor	Change	Rate	Time to the Next Critical Level**	Projected X-Ray Production in 1 Hour	Category	Descriptor
Units	24 Hour Clock	Amount of X-Rays	From R1 to R5	From Minor to Extreme	Amount of X-Rays	X-Rays/Min	Minutes	X-Ray Production	From R1 to R5	From Minor to Extreme
Calculations	From Data	From Data	See Reference Guide	See Reference Guide	B – Previous B	B / 20 min	$G = \frac{\text{Critical Value} - B}{F}$	(F x 60 min)	See Reference Guide	See Reference Guide
	15:00	9	R1	Minor	N/A	N/A	N/A	N/A	N/A	N/A
	15:20	16	R1	Minor	7	1	34	76	R2	Moderate
	15:40	46	R1	Minor	30	2	2	166	R3	Strong
	16:00	65								
	16:20	90								
	16:40	452								
	17:00	892								
	17:20									
	17:40									
	18:00									
	18:20									
	18:40									
	19:00									
	19:20									
	19:40									

* Graph this column

** You must constantly adjust your critical value based on current readings. For instance, if the storm is currently a category R2 or S2, your critical value will be the value for the next most dangerous level—R3 or S3. Remember, no calculations are necessary for Column G if the trend is not in the direction of criticality—that is, if the result in Column E is a negative number.