



Briefing Sheet: **Volcano Team**

Practice Data

Instructions

Before the mission begins, your team should practice analysing volcano data. You should be able to:

- Receive hourly **Rock Fall (RF)** and **Volcanic Tremors (VT)** data and predict what the daily rate will be for each (on two separate worksheets).
- Combine the daily predictions for **RF** and **VT** and determine whether you can predict any danger, and the degree of danger.
- Prepare a report form every five minutes to be read to Mission Control by the Communications Officer
- Draw three graphs. Graph the **Total Seismic Activity, Rock Fall (RF) and Volcanic Tremors (VT)** for each hour.

Rock Falls and Volcanic Tremors Practice Data from Aug 17th

This data is fictitious. However, it represents the type of data that you will be receiving on Mission Day.

Follow the instructions sheet to predict the danger from the Volcano.

Practice with sample data

In the table below is some sample data. The first four have been worked into the examples given on the Seismic Events Work Sheets.

Observation	GMT Hours	Hourly VT	Hourly RF
1	00:00	12	4
2	01:00	6	16
3	02:00	21	21
4	03:00	13	34
5	04:00	11	19
6	05:00	9	23
7	06:00	30	9
8	07:00	42	18
9	08:00	49	26
10	09:00	7	32
11	10:00	13	8
12	11:00	16	12
13	12:00	8	16
14	13:00	29	19
15	14:00	34	24
16	15:00	25	29
17	16:00	52	33
18	17:00	12	11
19	18:00	39	6
20	19:00	51	12
21	20:00	9	19
22	21:00	14	36
23	22:00	19	16
24	23:00	36	20



Seismic Work Sheet:
Examples and Practice

Rock Fall (RF)

A	B	C	D	E	F
GMT Hours	Hourly RF (from real-time data)	Cumulative RF	Multiply By	Predicted Daily RF Total (rounded up)	Predicted Total Seismic Activity (RF + VT)
00:00	4	4 (4 + 0)	24.0	96	384
01:00	16	20 (16 + 4)	12.0	240	456
02:00	21	41 (21 + 20)	8.0	328	640
03:00	34	75 (34 + 41)	6.0	450	762
04:00			4.8		
05:00			4.0		
06:00			3.4		
07:00			3.0		
08:00			2.7		
09:00			2.4		
10:00			2.2		
11:00			2.0		
12:00			1.8		
13:00			1.7		
14:00			1.6		
15:00			1.5		
16:00			1.5		
17:00			1.3		
18:00			1.3		
19:00			1.2		
20:00			1.1		
21:00			1.1		



Seismic Work Sheet:
Examples and Practice

Volcanic Tremors (VT)

A	B	C	D	E	F
GMT Hours	Hourly VT (from real-time data)	Cumulative VT	Multiply By	Predicted Daily VT Total (rounded up)	Predicted Total Seismic Activity (RF + VT)
00:00	12	12 (12 + 0)	24.0	288	384
01:00	6	18 (6 + 12)	12.0	216	456
02:00	21	39 (21 + 18)	8.0	312	640
03:00	13	52 (13 + 39)	6.0	312	762
04:00			4.8		
05:00			4.0		
06:00			3.4		
07:00			3.0		
08:00			2.7		
09:00			2.4		
10:00			2.2		
11:00			2.0		
12:00			1.8		
13:00			1.7		
14:00			1.6		
15:00			1.5		
16:00			1.5		
17:00			1.3		
18:00			1.3		
19:00			1.2		
20:00			1.1		
21:00			1.1		