

LOG CHARTS

1. The plotting of Log Charts provides a graphical display of the FSM readings obtained by the Controls and Posts to allow the Warning Teams to disseminate information to customers relating to Later Arrivals, Fallout Maxima and any Unusual Behaviour of Radioactive Decay.

The FSM

2. The No 2 Observer at the Posts and the Group Information Supervisor/Group Information Orderly at the Control are to monitor the FSM's and take and report readings at the times indicated in the appropriate section of SOP's.

3. The readings are logged in the "FSM" section of the Post Log at both Posts and Controls as follows:

## a. First Fallouts

(1) Under "Time" - the time at which the reading displayed on the FSM first rose to 0.1 cGy/h.

(2) Under "Dose Rate" - the words FIRST FALLOUT.

(3) Under "Time Report Made" - the time report made to the Post Display Plotter.

## b. Dose Rate Readings

(1) Once the reporting cycle is in operation and First Fallout has not yet occurred:

(a) Under 'Time' enter the time of the five-minute period.

(b) Under 'Dose-Rate' enter the words 'No Reading'.

(c) For subsequent reports of 'No Reading' under 'Time Report Made' enter the minutes of the even five-minute reporting cycle in the same line as previously used (eg 10, 20, etc).

(d) Commence a new line at every hour and half hour, ie 1000, 1030, 1100 etc.

(2) After First Fallout or New Arrival for each reading taken, whether reported or not:

(a) Under 'Time' enter the time of the five-minute cycle.

(b) Under 'Dose Rate' the COMPLETE reading as displayed on the FSM.

(c) Under 'Time Report Made' the time report made to the Control, or the letters 'NR' (Not Reported).

(3) If, due to a landline failure, a report is not made the letters 'NR' (Not Reported) are to be written at the left-hand end of the appropriate space under 'Time Report Made'.

## c. Dose-Rate Situation Reports

(1) At each even hour (eg 1000, 1200, 1400 etc), report the reading on the FSM preceded by the word 'RED' if the comparison between the reading on the hour, the reading five minutes before indicate a rise, or 'GREEN' if the comparison indicates no change or a fall in readings.

(2) Enter the reading in the Post Log, including the 'RED' or 'GREEN' prefix as reported.

d. Radioactive Decay. As a result of radioactive decay the dose-rate reading will eventually fall to below 0.1 cGy/h. At this time, and as long as the reading remains below 0.1 cGy/h, record and report NO READING in accordance with para 3 b (2).

4. The readings are displayed on the Post Display Boards by the Post Display Plotter when the readings are collected every even 10 minutes (see Appendix 1).

5. Log Chart Teller. At the beginning of the 10 minute period when the Post Display boards are rotated, the Log Chart Teller is to check that all Post Displays show the same message time and alert the Log Chart Plotter by saying the words MESSAGE BEGINS followed by the message time as displayed at the top of the Post Displays.

6. The Log Chart Teller is to tell information displayed on the Post Displays to the Log Chart Plotter by:

a. Saying MESSAGE BEGINS.

b. Message time - as displayed at the top of the Post Displays.

c. Looking at each Post in strict numerical order and telling the information displayed using the following sequence:

- (1) First Fallout (FF) - The number of the Post followed by the words FIRST FALLOUT and the time displayed against the Post.
- (2) Post Situations - The number of the Post spoken as a whole number followed by the words OUT, IN, US or OK, as appropriate.
- (3) Fallout Readings - The number of the Post spoken as a whole number, the word READING followed by the reading spoken as single digits. Readings from 0.1 to 2400 are to be told as displayed. Readings over 2400 are to be preceded by the word RED followed by the reading displayed divided by 10, ignoring the last digit (eg 2600 as RED TWO SIX ZERO).

NOTE: At each even hour the readings displayed will be preceded by the letter R or G. These letters are to be ignored by the Log Chart Teller.

7. Every Post is to be mentioned, in numerical order in the sequence but it is permissible when, for instance, two or more consecutive Posts have no fallout to say TWENTY TO THIRTY THREE, NO READING.

## EXAMPLE

TIME: 1030						TIME: 1030					
CODE	P		CODE	P		CODE	P		CODE	P	
CC	99		PP	15			20		CC	25	US
CC	10	1x6	QQ	16		CC	21		CC	26	
CC	11		<del>QQ</del>			CC	22		CC	27	33
CC	12	1026	<del>FF</del>	17	1015						

Fig Y.1

NOTE: 99 is the Operational number of the Group Control.

Told as: MESSAGE BEGINS - TEN THIRTY  
 NINETY NINE - NO READING  
 TEN - READING - ONE POINT SIX  
 ELEVEN - NO READING  
 TWELVE - FIRST FALLOUT - TEN TWENTY SIX  
 FIFTEEN - OUT  
 SIXTEEN - IN  
 SEVENTEEN - IN - FIRST FALLOUT - TEN FIFTEEN  
 TWENTY - NOTHING  
 TWENTY ONE TO TWENTY TWO - NO READING  
 TWENTY FIVE - US  
 TWENTY SIX - NO READING  
 TWENTY SEVEN - IN - READING THREE THREE

continuing in this manner until the last Post of the display has been told.

8. Log Chart Plotter. The Log Chart Plotter is to plot the information told to him on the appropriate charts using the following procedures:

- a. First Fallout - on hearing FIRST FALLOUT entering the time of First Fallout against the Post number in the appropriate box on the Log Chart, drawing the attention of the Log Chart Officer by noting the Post number on the Post Occurrence Tote.
- b. Post Situations - on hearing OUT or US enter the word OUT or US and the scan time in the Post Status box appropriate to that Post. On hearing IN or OK erase the word OUT or US and the time previously entered. Bring any changes in Post situation to the attention of the Log Chart Officer. If a Post is already logged as US take no further action.
- c. Fallout Reading - on hearing READING, preparing to plot the fallout reading on the appropriate Log Chart using a fine point pencil as follows:
  - (1) On hearing the Post number, locating the appropriate Log Chart holding in his mind the second figure of the Post number and the time given after MESSAGE BEGINS at the beginning of the sequence.
  - (2) On hearing the reading, writing neatly the second figure of the Post number at the point where the time line intersects the reading line or, when the reading told does not coincide with a reading line, the next reading line above the reading told.
  - (3) In the event of two or more Posts on the same chart having the same reading at the same time, writing the number of the first Post in the normal way and writing the others with the same reading above the first and ringing round the number to indicate that they are the same as the one below.
  - (4) On hearing the reading preceded by "RED" writing the Post number using a red pencil at the appropriate position on the log chart.

9. Drawing the Attention of the Log Chart Officer. In addition to First Fallout (see para 8a) the Log Chart Plotter is to draw the attention of the Log Chart Officer by writing the number of the Post concerned on the Post Occurrences:

- a. Fallout Maximum - Two consecutive readings lower than the highest recorded reading against a Post.
- b. Later Arrivals - Two consecutive rises in the reading for a Post after a "Fallout Maximum" has been established for that Post.
- c. Unusual Behaviour - Any unusual behaviour in the pattern of readings on the Log Charts (eg, a sudden change in the rates of increase in readings).
- d. Post Situations - Any changes in post status (eg Post back IN after loss of contact).

10. Appendices

1. Log Chart
2. Log Chart from Layout.

11. References

Annex L3 - Fixed Survey Meter.

Annex AC - Operational Logs and Diaries.

Annex U - Post Displays and First Fallout Early Warning Board