## ROYAL OBSERVER CORPS - POSTS

### CREW OPERATING PROCEDURES



# NO 1 OBSERVER - DURING NUCLEAR ATTACK

### BOMB POWER INDICATOR

- Control the timing of BPI readings as follows:
  - a. Immediately a reading, however small, is shown:
    - (1) WAIT 10 SECONDS then reset BPI to zero.
    - (2) If the needle moves to a higher reading during the 10 seconds between recording a reading and resetting to zero, start a new 10 second count.
    - (3) Treat subsequent readings in the same way, so that as many times and pressures as possible are recorded and reported.

#### GROUND ZERO INDICATOR

- 2. When one complete minute has elapsed after the last reading of 02 kilo-pascals or more on the BPI, instruct No 3 Observer to change the GZI cassettes:
  - a. When the Observer returns with the exposed GZI papers in their cassettes:
    - (1) Write on the back of each sheet the time at which the Observer left the monitoring room to change the cassettes.
    - (2) Examine the papers for marks caused by Nuclear Bursts.
    - (3) If there is more than one mark (hereinafter referred to as "spots") decide which is the largest.
    - (4) Enter the cardinal compass point (N, E, S, W) of the cassettes in column 1 and the time the Observer left the monitoring room to change the cassettes in column 2 of Form GZI.
    - (5) Estimate the centre of the spot, read off the bearing of the centre in degrees against the graticule as accurately as possible and write the bearing in three figures (eg, 003) in column 3 of Form GZI.
    - (6) Read off the elevation of the centre of the spot in the same way and write it as two figures (eg, 04) in column 4 of Form GZI. (If the centre of the spot is on or below the 0 degree line, the elevation is to be written as 00).
    - (7) Decide whether or not the spot touches the Horizon Line, write 'T' (for Touching) or 'C' (for Clear) in column 5 of Form GZI.
    - (8) Estimate the width of the spot in degrees by reference to the graticule and write it as two figures (eg, 04) in column 6 of Form GZI.

- (9) Pass the Form GZI to No 2 Observer for reporting.
- (10) Deal in a similar way with the next largest spot and follow this with the next largest and so on, until all spots have been dealt with in descending order of spot size.
- (11) Re-load empty cassettes with new papers and place in envelope.
- NOTE: The actions in sub-paras a(1) to a(10) above are to be carried out as quickly as possible, commensurate with accuracy.
- b. File all Forms GZI returned by No 2 Observer with the appropriate GZI papers.

#### NO BPI READING

- 3. If a loud explosion is heard and no reading appears on the BPI, do NOT change the GZI cassettes, except on instructions from the Duty Officer via the Post Display Plotter or, if out of communication with the Control, from the Master Post.
- 4. Enter the words "Loud Explosion Heard" and the time of the explosion in the Post Diary.

### ABOVE GROUND OBSERVATIONS

- 5. If above ground at the moment of a nuclear attack, take action, at once, for your own protection:
  - a. Lie flat and cover the eyes.
  - b. Cover as much exposed skin as possible.
- 6. In this event, or in the event of being required to go above ground after a nuclear attack, some of the immediate effects of the burst may be seen. If possible, without prejudice to individual safety and/or the safety of the other crew members, note:
  - a. The time.
  - b. The approximate bearing of the mushroom stem.
  - c. Whether or not the stem is joined to the ground.
  - d. The shape of the cloud if it has stabilised (ie, at 5 -15 minutes after burst).
- 7. Enter any information so obtained in the Post Diary, but do not report it unless it is specifically asked for.
  - NOTE: Not withstanding the foregoing, do not leave the Post, nor remain outside it, specifically for the purpose of obtaining this information.

## POST DIARY

- 8. Enter details of actions taken independently and instructions received from either the Control or the Master Post, and the actions taken as a result of such instructions; enter also details of any above-ground observations made as in paras 5 and 6 above.
- 9. If a Master Post, enter details of any instructions given to other Posts in the Cluster who are out of communication with the Control.
- 10. Enter details of loud explosions heard without corresponding BPI readings (para 4).

## REFERENCES

11. Annex D Post Diary
Annex L1 The Bomb Power Indicator
Annex L2 The Ground Zero Indicator
Annex Q Post Ventilation

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## ROYAL OBSERVER CORPS - POSTS



# NO 2 OBSERVER - DURING NUCLEAR ATTACK

#### COMMUNICATIONS

1. Maintain continuous contact with the Control by manning the Loudspeaker Telephone.

# BOMB POWER INDICATOR

- 2. Maintain a constant watch on the BPI. Carry out the following procedures:
  - Immediately a reading, however small, is shown:

    I INFORM NOI OBSERVER THAT A READING HAS REGISTERED.

    (1) Enter the time of the reading and the pressure in kilopascals (kPa) in the "BPI" section of the Post Log. (The time and the readings are to be written in accordance with Annex A).
    - (3) All readings, however small, are to be recorded together with the time of the reading.
    - (4) If the BPI needle moves to a higher reading during the 10 seconds between recording a reading and resetting to zero by No 1 Observer, enter the higher pressure and time in the BPI section of the Post Log.
    - (5) Treat subsequent readings in the same way so that as many times and pressures as possible are recorded and reported.
  - b. Report all pressures of 02 kPa  $\,$  OR  $\,$  MORE, to the nearest whole kilopascal to  $\,$  Control:
    - (1) Say the word TOCSIN followed by the Group name, the Post number, the word POST, the time of the BPI reading followed by the word OVER (the time is to be spoken in accordance with Annex A, para 15).
    - (2) Release transmit button on the Loudspeaker Telephone and pause to allow the Post Display Plotter to repeat the call.
    - (3) Say the word PRESSURE.
    - (4) Say the actual pressures to the nearest kPa (spoken as in Annex A para 6) followed by the word OVER.
    - (5) Release transmit button on the Loudspeaker Telephone and pause while Post Display Plotter says THANK YOU, OUT as an acknowledgement.

EXAMPLE: TOCSIN HORSHAM TEN POST TWELVE TWENTY ONE, OVER (Plotter repeats TOCSIN HORSHAM TEN POST TWELVE TWENTY ONE OVER).

PRESSURE ZERO FOWER, OVER (Plotter says THANK YOU, OUT).

c. In the Post Log enter in the BPI section the time report made to Control.

#### GROUND ZERO INDICATOR

- 3. a. Enter in the GZI section of the Post Log the time at which No 3 Observer left the monitoring room to change the cassettes.
  - b. On receiving Form GZI from No 1 Observer, report the information in columns 2 to 6 to the Post Display Plotter:
    - (1) Say the words NUCLEAR BURST, followed by the Group name, the Post number and the words POST OVER.
    - (2) Release transmit button on Loudspeaker Telephone and pause to allow the Plotter to repeat the Group name, the Post number followed by the words POST, OVER.
    - (3) Say the time (from column 2 of Form GZI) at which the Observer left the monitoring room to change the GZI cassettes.
    - (4) Say the word BEARING followed by the actual bearing in degrees (from column 3 of Form GZI) spoken as in Annex A para 7.
    - (5) Say the word ELEVATION followed by actual elevation in degrees (from column 4 of Form GZI) spoken as in Annex A para 8.
    - (6) Say the word TOUCHING or CLEAR as appropriate (from column 5 of Form GZI).
    - (7) Say the words SPOT SIZE followed by the actual spot size in degrees (from column 6 of Form GZI) spoken as in Annex A para 9, followed by the word OVER.
    - (8) Release transmit button of the Loudspeaker Telephone and pause to allow the Post Display Plotter to acknowledge by saying THANK YOU, OUT.

### **EXAMPLE:**

NUCLEAR BURST HORSHAM TEN POST, OVER (Plotter says HORSHAM TEN POST, OVER) - TWELVE SIXTEEN - BEARING ZERO ONE TWO - ELEVATION ZERO THREE - TOUCHING - SPOT SIZE ZERO SIX, OVER - (Plotter says THANK YOU, OUT)

- c. Enter the time report made to Control in column 7 of Form GZI.
- d. In the Post Log enter in the GZI section the details of columns 2 to 7 of Form GZI.
- e. Return Form GZI to No 1 Observer for filing.

#### NO BPI READING

4. If a loud explosion is heard, GZI cassettes will only be changed on instructions from the Duty Officer via the Post Display Plotter or, if out of communication with Control, from the Master Post.

#### FIXED SURVEY METER

5. Maintain continuous watch and make reports when required by the reporting time cycle (Part F Sect 2.2 paras 6 to 9).

# PRIORITY OF REPORTING

- 6. The word TOCSIN is used to obtain absolute priority of reporting. On hearing this call from another Post, cease reporting; DO NOT USE the call to interrupt another Post's TOCSIN report.
- 7. The words NUCLEAR BURST are used to obtain priority over reports of lower priority. On hearing this call, cease reporting if a lower priority report is being made but DO NOT USE the call to interrupt another Post's NUCLEAR BURST report.
- 8. The priorities of reporting are:
  - a. TOCSIN.
  - b. NUCLEAR BURST.
  - c. FIRST FALLOUT.
  - d. OTHER INFORMATION.
- 9. If, at the conclusion of a report of any type there is further information to report, release transmit button on the loudspeaker telephone for a count of five after each report, to allow another Post to make a higher priority call or to allow the Post Display Plotter to break in to instruct a Post to wait, to tell another Post to report, or to ask for a repeat.
- 10. If the Post is out of communication with the Control and the Master Post when bursts occur, enter BPI and GZI information in the appropriate sections of the Post Log. Enter the letters NR (not reported) at the left-hand end of the "Time Report Made" column.
- 11. When communications are restored, inform the Post Display Plotter, or Master Post, that delayed Nuclear Burst Information is available.
- 12. Report the BPI and GZI information only if asked for, in accordance with standard procedures, with the exception that the TOCSIN call is not to be used, nor is any priority to be given to these reports.
- 13. Entries in the BPI and GZI sections of the Post Log are to be made as follows:
  - a. Information reported.

Enter in the appropriate "Time Report Made" column alongside "NR" the time report made to the Control.

b. Information not wanted.

Enter in the appropriate "Time Report Made" column alongside "NR" the letters "NW" (not wanted).

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#### ABOVE GROUND OBSERVATION

- 14. If above ground at the moment of a nuclear attack, take action, at once, for your own protection:
  - a. Lie flat and cover the eyes.
  - b. Cover as much exposed skin as possible.
- 15. In this event, or in the event of being required to go above ground after a nuclear attack, some of the immediate effects of the burst may be seen. If possible, without prejudice to individual safety and/or the safety of the other crew members, note:
  - a. the time.
  - b. the approximate bearing of the mushroom stem.
  - c. whether or not the stem is joined to the ground.
  - d. the shape of the cloud if it has stabilized (ie, at 5-15 minutes after burst).
- 16. Report observations to No 1 Observer.

NOTE: Not withstanding the foregoing, no crew member is to leave the Post, nor remain outside it, specifically for the purpose of obtaining this information).

#### REFERENCES

- 17. Annex A Instructions for writing/speaking information
  - Annex B The Loudspeaker Telephone
  - Annex C Post Log
  - Annex L1 The Bomb Power Indicator
  - Annex L2 The Ground Zero Indicator
  - Annex L3 The Fixed Survey Meter
  - Annex Q Post Ventilation

#### ROYAL OBSERVER CORPS - POSTS

#### CREW OPERATING PROCEDURES

## NO 3 OBSERVER - DURING NUCLEAR ATTACK

## GROUND ZERO INDICATOR

- 1. On instruction from No 1 Observer:
  - a. Change the GZI cassettes as quickly as possible. Lock the hatch on exit and re-entry.
  - b. Pass exposed GZI papers, in their cassettes, to No 1 Observer through monitoring room door if contamination present.
  - c. Decontaminate, if necessary.
  - d. Transfer the reserve set of loaded cassettes to the lightproof satchel.

#### ABOVE GROUND OBSERVATIONS

- 2. If above ground at the moment of Nuclear Attack take action, at once, for your own protection:
  - a. Lie flat and cover the eyes.
  - b. Cover as much exposed skin as possible.
- 3. In this event, or in the event of being required to go above ground after a nuclear attack (ie, to change GZI papers or to make ROCMET observations) some of the immediate effects of the burst may be seen. If possible without prejudice to the individual safety and/or the safety of the other crew members, note:
  - a. the time.
  - b. the approximate bearing of the mushroom stem.
  - c. whether or not the stem is joined to the ground.
  - d. the shape of the cloud if it has stabilised (ie at 5-15 minutes after burst).
- 4. Report observations to No 1 Observer.

(NOTE: Not withstanding the foregoing, no crew member is to leave the Post, nor remain outside it, specifically for the purpose of obtaining this information).

### REFERENCES

5. Annex L2 The Ground Zero Indicator

Annex Q Post Ventilation

Annex S Decontamination at Posts

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