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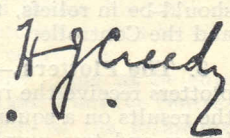
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AIR DEFENCES, GREAT BRITAIN

**INSTRUCTIONS FOR OBSERVER
CENTRES**

1928

By Command of the Army Council,



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AIR DEFENCES, GREAT BRITAIN

INSTRUCTIONS FOR OBSERVER CENTRES

1. **The System.**—One of the first necessities in air defence is constant information of the course of hostile bombers; in order to obtain this information a number of observer posts are organized over the area liable to attack. The whole area is divided into observer zones. In each zone there is an observer centre which receives information by direct telephone from the observer posts.

The system further provides that the information shall be quickly passed from the observer centre to the various air defence commanders, who act accordingly.

The observation system provides information that is necessary for air raid warnings.

2. **Action on "Readiness".**—"Readiness" is the code word for putting the observation system in action.

For practice, dates and hours of "Readiness" are arranged beforehand.

A little before the hour arranged for "Readiness", the centre is manned. The post office officials switch the various telephone lines through, and plotters and tellers test their lines.

In order to test the ringing arrangements between observer posts and centres, rings will be exchanged between each post and the centre occasionally, at the beginning or end of practices.

When the centre has to be in action for a considerable time on end, as in Air Defence Manoeuvres, the manning should be in reliefs, to be arranged by the Police Authorities and the Controller.

3. **The Plotters.**—(a) At the observer centre a number of plotters receive the reports from the observer posts, and plot the results on a squared map. Each square is known by two letters and two numbers, for example, FG27.

(b) Each plotter deals with two or three observer posts, and is always in direct communication by telephone with them. Each post is known by a letter and a number; for instance, one plotter deals with A1, A2 and A3 posts.

The plotter wears a telephone headset, so that his hands are free for plotting the observations with counters.

(c) Telephone work will be kept as quiet as possible; the microphones on the headsets are sensitive, and give good

results with ordinary speech. The observers at the other end of the lines are usually working in quiet conditions.

(d) If the plotter can hear talking at the posts when no report is coming through, it means that the speaking switch at some post had been left "On" by mistake. The plotters will call the attention of the posts to this.

(e) Reports are given by the observer posts in the following form:—

"Plane seen (or heard) F.G.2.7." If possible the direction of flight will be added, for example: "Plane seen F.G.2.7. Flying North." One side of the counters has an arrow by which the direction may be shown. If there are two or more aeroplanes together, the message begins: "Two (or more) planes", or "Formation". If the observers can distinguish bombing or fighting types of aeroplanes, they will say so, and a full message might be: "Bomber seen F.G.2.7. Flying North".

In reporting it is important to keep to the above forms.

Posts are instructed to report about every half minute.

If more than one post of a group wishes to report at the same time, the plotter will say (for example) "A.1. and A.3. wait, A.2 report".

The best report available will be taken; the nearer an aeroplane is to a post, the less effect is caused by errors in height, and the more accurate the report is likely to be.

The plotter should take charge from the first moment an aeroplane appears in his area. If reports do not come through often enough, he should keep worrying the information out of his posts, and he should follow up the aeroplane until it definitely leaves his area and is handed over to the next plotter.

(f) From time to time the plotter will inform his posts of any aeroplanes approaching their neighbourhood, and he will communicate heights as ordered by the controller.

Posts will report if the aeroplanes are flying at heights obviously different from the height given out from the centre.

Plotters will call the teller's attention to the following points:—

Any pronounced change of course;

A report of obviously wrong height;

Whether the observation is by sight or sound, when there is any doubt on this point.

(g) A clock in the centre has a coloured band attached to the dial in such a manner that each five minutes in every quarter of an hour is denoted by a different colour.

1st five minutes of each quarter of an hour :	Red.
2nd five minutes of each quarter of an hour :	Yellow.
3rd five minutes of each quarter of an hour :	Blue.

On receiving a report, the plotter places a counter on the square reported. The colour of the counter corresponds to the colour indicated by the minute hand of the clock. Round counters represent fighters. Bombers are shown by square counters.

The number of aeroplanes in a formation is shown by a figured counter attached to the course shown on the map.

The plotters remove stale counters when the next but one colour begins; for instance, the red counters are removed as soon as the first blue counters go on to the map.

4. Recorder and his assistant.—A recorder keeps on squared paper a record of the plots made. The record will be made in the same colours as the counters on the map. A fresh record sheet, marked with the time, will be used every quarter of an hour. It will make recording easier if the coast line or county boundary is roughly drawn in on the record sheets before work begins.

In recording, priority should be given to bomber courses:

It is hardly worth while to record individual counters as they go on the map. The best method is to record a whole five minutes just as the new colour is beginning, eliminating stray counters that may result from a faulty report or plot.

The assistant recorder will prepare the fresh record sheet and give it to the recorder at the beginning of each quarter of an hour. He will help the plotters to remove stale counters at the end of each five minutes.

The recorder will hand his record sheets completed in all details to the controller at the end of a practice. The controller will give them to the representative of the air or ground troops staff, if present, or he will send them to Headquarters, Air Defence Formations, T.A., Hillingdon House, Uxbridge, Middlesex.

5. Teller and Assistant Teller.—The teller will overlook the control map and communicate the plotting to fighting area headquarters. The teller will report in the form of words laid down in para. 3 (e) above.

The teller will also receive from fighting area headquarters information of the movement of aircraft outside his own observer zone. He will repeat this information to the assistant teller, who will plot it on the small scale teller's map.

The assistant teller will communicate plottings to neighbouring headquarters or centres, transmitting only information that directly concerns them.

6. Controller.—The controller will superintend the work of the centre, particularly the passage of information to other headquarters and centres. He has switches by which he can be put directly through to any plotter's group of posts. He can also speak to any other headquarters or centres with which his centre communicates.

When heights are known, the controller will give them to the plotters for communication to their posts.

Indicators at each plotter's position on the table show what posts are through. The controller should report by telephone to the Chief Constable, if any post appears not to be manned.

At the conclusion of an exercise the controller or plotters will order all Posts to "close down" and say "Good night".

The controller will deal with record sheets as shown in para. 4.

The Police authority will keep charge of the Centre file of papers which includes:—

Instructions for observer centres.

Detailed description of the apparatus.

List of posts, their head special constables, and the Police authority responsible.

Telephone details of the posts and adjacent formations.

Instructions for ringing tests.

List of the special constables of the observer centre.

Specimen recorder's sheet.

7. Cancelling.—When, on account of bad weather, it is necessary to cancel an exercise, cancelling orders are sent to observer posts, through local Post Offices, and also to certain observers who are on the telephone. The time available may be short, and these messages may not arrive in time to prevent posts being manned. It is, therefore, important, when an exercise is cancelled, that the centre should be manned for a quarter of an hour, and that the plotters should dismiss any post that may be in action.