

Weather Reporting at selected ROC Posts

By Leading Observer M. C. RICHARDS, 4/C.3

Early in the summer of 1968 a number of Royal Observer Corps Posts in Metropolitan Area were selected to take part in a weather reporting trial. The purpose of this was to enable the Meteorological Office to investigate the potential effectiveness of using ROC Posts as weather reporting stations in an emergency. Posts were selected by drawing a rhombic grid over the British Isles based on two lines approximating to the general direction of the East and South Coasts. The intersections on this grid were 40 miles apart and the posts selected for the Metropolitan Area trial were those nearest to these intersections. This has worked out to approximately one or two posts per Group. For example there were two such posts in No 4 Group, one of these being my own Post, Charlie 3, at Wickham Market in Suffolk.

Weather reporting from ROC Posts is not new. In the days of aircraft reporting all posts were required to give a weather report if asked for one by the plotter. These weather reports relied entirely upon visual observations, and in consequence may not have been very accurate. The new procedure is rather more scientific and relies on visual observation only for two of the items. The code name ROCMET has been reintroduced to label the procedure. This same title was used in the late

1940s when selected ROC posts were required to initiate coded weather reports also for use by the Meteorological Office.

The reason for this new procedure being tried out in the ROC is that the Meteorological Office were concerned that in the event of a war they may not be able to receive reports from their usual sources. The Met Office has supplied the equipment to the ROCMET Posts for the collection of the weather information. This equipment takes the form of three instruments, an aneroid barometer, calibrated in millibars, a hand-held anemometer and a whirling frame psychrometer (all pictured below).

On exercises or if required on operations the ROCMET observations are taken, logged and reported hourly, on the hour. On Charlie 3 Post we start to take the readings at ten minutes to the hour, the readings are then ready to report as soon as possible after the hour.

The aneroid barometer, which is adjustable according to the height of the post above sea level, is kept down below in the underground post hung up on a hook. The barometer is read by the Observer who logs the reading. This is read in whole millibars, but in the log entry the thousand digit is ignored. For example the reading 997 is logged as such, and the reading 1009 is logged as 009.

The remainder of the information required has to be collected from above ground. An Observer goes outside the post equipped with the anemometer, the psychrometer and on Charlie 3 Post a card for the wind direction. The instruments are carried in a bag which is hung around the neck of the Observer for ease of climbing the post ladder. A pad of forms, on which the headings from the ROCMET log are duplicated, is also carried to enable above ground observations to be noted down on the spot.

The first two items of information collected are those which rely entirely upon visual observations on the part of the Observer. The first is the weather situation prevailing at that time, and is assessed by reference to the following table:

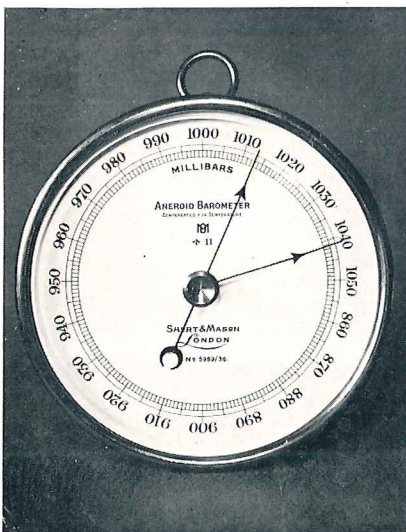
Code	Condition
0	No Cloud
1	Partly Cloudy
2	Cloudy (Complete Cover)
3	Thick Haze or Mist
4	Fog
5	Drizzle
6	Rain
7	Snow
8	(Not Used)
9	Thunderstorm.

The second visual observation is the assessment of the visibility. This is done from marker points at known distances from the Post, and is taken by reference to the following table.

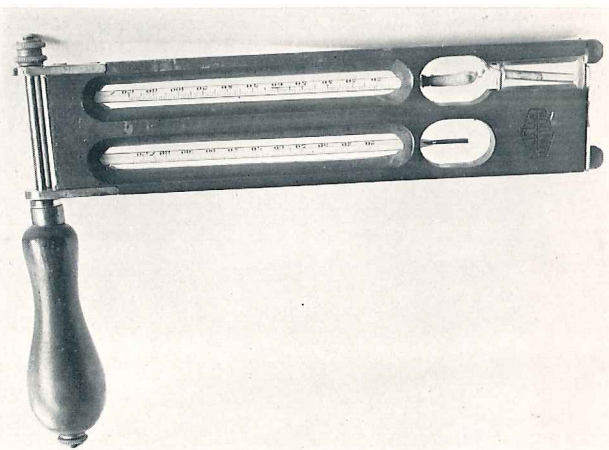
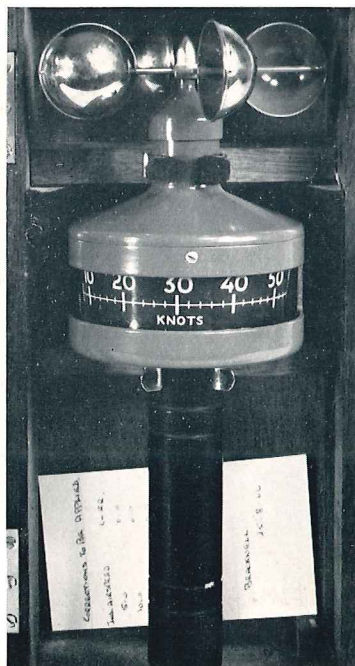
Code	Condition
0	Less than 20 yards (Thick Fog)
1	Less than 1100 yards
2	1100 yards to 2 miles
3	2 miles to 6 miles
4	Better than 6 miles.

The visibility is established by fixing the identity of landmarks at known

HQ, ROC Addendum. As a result of the successful trials referred to by Leading Observer Richards a firm commitment for hourly weather reports to be made from selected ROC Posts in wartime has now been established. A total of 86 ROC Posts all over the United Kingdom have been chosen for this task by means of a 40-mile square grid laid similar to the one described, with preference being given to radio Posts where these were near enough to the intersections on the grid.



Aneroid Barometer



Whirling frame Psychrometer The model used by the ROC is not fitted with the wet bulb thermometer

Hand-held Anemometer

distances from the Post. These are required at 20 yards, 1100 yards, 2 miles and 6 miles, and can easily be found with the aid of an Ordnance Survey Map. The visibility observation is noted and the appropriate Code Number is entered in the ROCMET log.

The direction from which the wind is blowing is then assessed in tens of degrees from true North. We at Charlie 3 used a card for this purpose marked out in divisions of tens of degrees around a circle. This card is oriented by marker points on the Post structure. These were set with a compass. When logging the wind direction the zero digit is ignored, for example, North (360°) is logged as 36, East (90°) as 09, South as 18 and West as 27.

The wind speed is then obtained by means of the hand-held anemometer, which is held up in a position exposed to the wind flow until the pointer is steady at a constant wind speed. This is read off in knots direct from the anemometer. The speed is entered in the ROCMET log using two figures; for example a wind speed of 5 knots is logged as 05.

The final item for the Observer above ground to collect is the temperature. This is obtained from the whirling frame psychrometer by rotating it a minimum of ten times in a manner similar to a football rattle, and then the reading is taken. This is read off and logged in degrees Fahrenheit.

Part of a log sheet is also shown with an example ROCMET report, which consists of a string of eleven figures, representing the information collected. These figures are preceded by five further figures which indicate the post number of the Post making the report, and the time of the report in hours. The post number in this case always preceded by the digit zero. This series of figures then enables the report to be transmitted over the data link at the operations room.

The Post reporting sequence is as in the following example:

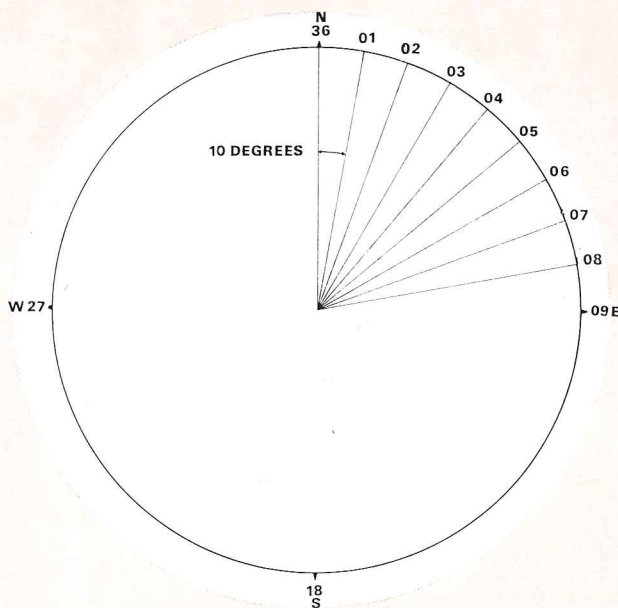
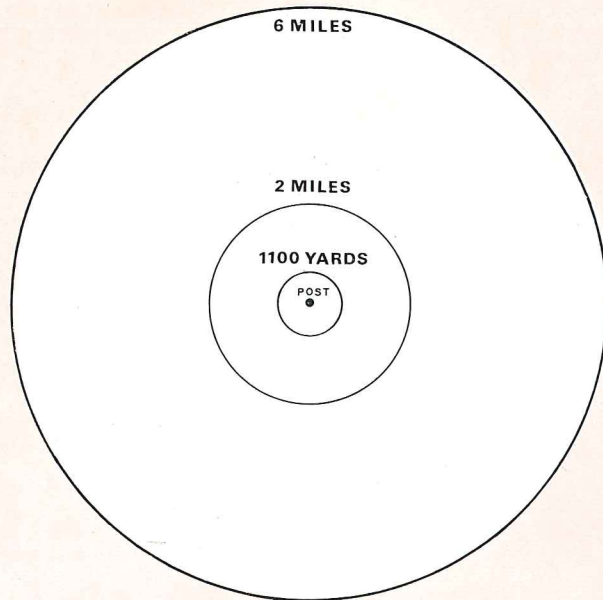
Post Observer FIFTEEN POST—
ROCMET

Plotter FIFTEEN POST

Post Observer ROCMET—
01523 (pause)
02413 (pause)
090978

Plotter THANK YOU.

The information obtained during the trials, using the ROCMET procedure as outlined, was made up into hourly weather charts. These charts compared very favourably with weather charts compiled from reports made at the same times by the Met Office's normal weather stations. The trials show that ROCMET procedure is another task which the Royal Observer Corps is able to undertake with great success in the best traditions of the Corps.



VISIBILITY MARKER CHART 20-yard visibility marker distance not shown, and **WIND DIRECTION CHART.** Seen below is part of a ROCMET LOG SHEET.

METEOROLOGICAL OBSERVATION LOG						
No. 2 GROUP						
POST/TIME	PRESSURE	WEATHER	VISIBILITY	WIND DIRECTION	WIND SPEED	TEMPERATURE
a	b			c		
015 23	024	1	3	09	09	78
/						
/						
/						
/						