

58. The functions of the Observer Corps (since granted the "Royal" prefix) are too well known to require description here. Suffice it to say that this loyal and public-spirited body of men had maintained their watch with admirable efficiency since the beginning of the war and throughout a winter of exceptional severity. It is important to note that, at this time, they constituted the sole means of tracking enemy raids once they had crossed the coast line. Later experience was to show that "sound plots," which were all that could be given for night raiders, and aircraft flying above clouds or at extreme altitudes, were not adequate for purposes of accurate interception; but their work throughout was quite invaluable. Without it the Air Raid Warning systems could not have been operated, and Inland Interceptions would rarely have been made.

59. The credit for building up and developing the Observer Corps in recent years is due largely to its Commandant, Air Commodore A. D. Warrington Morris, C.M.G., O.B.E.

60. The Air Raid Warning System was operated centrally from Fighter Command Headquarters (with a small exception in the Orkneys and Shetlands).

61. The country was divided into about 130 "Warning Districts," the boundaries of which were determined by the lay-out of the public telephone system. These districts were shown on a map in my Operations Room, and the tracks of all enemy raids, whether over the land or sea, were plotted by means of counters deposited and removed as necessary by a number of "Plotters."

62. The counters were of three colours, according to the 5-minute period in which they were placed on the table. This was necessary to facilitate their removal at the end of 15 minutes, and so to obviate the confusion caused by "stale plots."

63. Three telephone operators were in continuous communication with the Trunk Exchanges in London, Liverpool and Glasgow, and when a raid was within 20 minutes' flying distance of a warning district the Air Raid Warning officer would send a message, as, for instance: "10. Norwich. Yellow." The London operator would transmit this to the London Trunk Exchange, and the London operator would immediately retransmit it to Norwich, where other operators would pass it on to approved recipients in the Warning District. This was a preliminary caution for the information of Police, Fire Stations, &c., and involved no public warning.

64. About 5 minutes later, if the said District were still threatened, a "Red Warning" would be given. This was the signal for the Sirens to sound. A "Green" signal indicated "Raiders Passed," and the Sirens sounded the "All Clear."

65. At night, when it became essential to maintain exposed lights in Dockyards, Railway Sidings and Factories up to the last minute, so as to obviate unnecessary loss of working time, a "Purple" warning was introduced. This was a signal for the extinction of exposed lights, but it did not connote a public warning.

66. There were also subsidiary warnings, transmitted by a fourth operator, to close down Radio Stations which might assist the enemy's navigation by enabling him to use wireless Direction Finding.

67. The credit for working out this system in conjunction with the Home Office is due largely to Air Vice-Marshal A. D. Cunningham, C.B.E.

68. The Fighter Command was divided into Groups and Sectors in accordance with the arrangement shown in Appendix A A. Only Nos. 11, 12 and 13 Groups were fully organised at the beginning of the Battle. Each Group and Sector Headquarters had an Operations Table generally similar to that already described at Command Headquarters, but covering an appropriately smaller area. The British Isles and neighbouring seas were covered by an imaginary "grid" which was used by all concerned for plotting purposes. An expression consisting of one letter and four digits gave the position of a point with an accuracy of 1 square kilometre.

69. Plots from which tracks could be built up were received first from the Radio Location Station, and later from the Observer Corps (and to a small extent from Searchlight Detachments) after a raid had crossed the coast.

70. All Radio Location plots came to a "Filter Room" table at Command Headquarters (next door to the room in which the Operations Table was situated), and, after surplus information had been eliminated, tracks were passed by direct telephone line simultaneously to my Operations Table and to those of Groups and Sectors concerned.

71. Observer Corps plots, on the other hand, went first to Observer Group Centres (where plotting tables were also installed) and thence to Sector and Fighter Group Operations tables. The tracks were then "told" to my Operations Room from the Group Tables.

72. In order to avoid waste of flying effort and false Air Raid Warnings it was obviously very necessary to differentiate between friendly and enemy formations, and this was the most difficult as well as the most important task of my Filter Room. Liaison Officers from Bomber and Coastal Commands were permanently on duty, and they were in possession of all available information concerning the operations of our own Bombers and Coastal patrols. During 1940 an electrical device became generally available which modified the echo received by the Radio Location System from our own aircraft in a characteristic manner. This was of the greatest value.

73. The credit for working out the complicated details of the Filter Room belongs largely to Wing Commander (now Group Captain) R. G. Hart, C.B.E.

74. It appeared to me quite impossible to centralise Tactical control at Command Headquarters, and even Group Commanders would be too busy during heavy fighting to concern themselves with details of Interception.

75. The system was that the Command should be responsible for the identification of approaching formations and for the allotment of enemy raids to Groups where any doubt existed. Group Commanders decided which Sector should meet any specified raid and the