Interference with reception

various destinations in almost every corner of the world.

The aggravation of conditions ruling the utilisation of United States ships for the transport of goods of neutral origin unfortunately rendered the transhipment of Swiss goods in United States ports so difficult, that the Federal War Transport Department was obliged to employ Swiss ships for the transport of Swiss merchandise to Central and South America and British India. Regular sailings of Swiss ships to the main ports in these territories have now been organised.

The maintenance of regular direct lines to Switzerland's main oversea markets is of vital importance to that country. The Federal War Transport Department will, therefore, do everything in its power to prevent an interruption in Swiss merchant ship sailings.

INTERFERENCE WITH RECEPTION.

There are three main causes of interference: atmospheric disturbances, electrical interference from apparatus in the listener's neighbourhood, and the transmissions of other stations.

Atmospheric disturbances are not as a rule severe in this country except during thunderstorms, and cannot be prevented. Electrical interference is usually heard as a more or less continuous crackling or buzzing noise with clicks when the interfering aparatus is switched on or off. It may be caused by trams, trolley-buses, motors, fans, vacuum cleaners, lifts, etc. The services of the Engineering Branch of the General Post Office are given, free of charge, when available, to all wireless licence holders in tracing the source of interference and advising on its suppression. Listeners requiring assistance should complete the electrical interference questionnaire ('Report of Interference'), which can be obtained from any head Post Office.

The precaution which a listener should take against electrical interference is to erect an efficient outdoor aerial, if necessary, one of the "anti-interference" type, now manufactured by several firms.

Interference from other Stations. — If a receiver is deficient in the property of selectivity, other programmes may be heard as well as the wanted programme even if the latter is at good strength. At times when the home programmes are received weakly the listener may perhaps find increased interference from Continental stations working on adjacent wavelengths. It may even seem at times as if a foreign station is operating on a BBC wavelength, when, in fact, it is keeping strictly to its own.

This kind of interference is more likely to occur after sunset than in the day-time, for then a quite distant Continental medium-wave station will generally give steadier reception than that obtained from a quite moderate, though not close, range. Unless the receiver has gone out of adjustment since it was first installed, there is little that can be done to overcome this type of interference, because the selectivity of a receiver depends on its fundamental design. In the case of interference in the form of a permanent background to one of the BBC programmes, which sometimes happens in the case of a very simple or unselective receiver, the unwanted programme can generally be excluded by making a small addition to the receiver in the form of a 'wave trap.' Particulars of this inexpensive and very simple addition will be sent to any listeners who are so troubled.

Installation. — The efficiency of every receiver is improved by the provision of a good aerial and earth system. Although a modern receiver gives sufficiently *loud* reception with only a few feet of wire for an aerial and no earth at all, it is then working all the time near its most sensitive condition and noises due to electrical interference may become prominent. The aerial is advisable — one as high as possible within the limits stated on the back of the wireless licence. The down-lead enters the house. The earth connection should be short and direct and may be taken to a metal plate or wire netting buried in the earth, to an earth tube, or to a main water pipe. Gas pipes should not be used. If an indoor aerial must be used, it should not run parallel to electric lighting or telephone wires which may be embedded in the walls or ceiling.

Reception in Wartime. — The following suggestions are made in order to meet the special conditions in areas where reception may be poor as a result of the wartime system of broadcasting. These measures are palliative only, and the degree of their success depends on various factors. Where the trouble exists, however, they are worth a trial.

(1) Use a short vertical aerial without flat top portion or long horizontal leads, spaced a few feet away from the house if outside. Where the programme is strong, notwithstanding distortion, the short aerial should be put inside the room and suspended vertically above the receiver.

(2) Disconnect the aerial, and connect the earth wire to the aerial terminal of the receiver instead of to the earth terminal. For battery-operated sets not of a self-contained portable type, but using an aerial with earth connection, try reversing the positions of the aerial and earth wire leads on the terminals of the receiver. In general, this remedy is only successful where the programme strength is always good although distorted, and where some distortion occurs in daytime as well as after nightfall.

(3) Use an extemporized frame aerial made by winding about ten turns of insulated wire round the edges of a cardboard or wooden box (with sides say about two feet square), the ends of the wire being connected with the aerial and earth wires. The box should be stood on edge and turned in various directions until the best results are obtained. This method is only suitable with a modern receiver of high sensitivity, but where the strength of the programme is good at all times although distorted, it has been found to give satisfactory results in certain localities both in daytime and after dark.

The first two of the above methods are not possible with a self-contained portable set which includes within it a small frame aerial, but this type of receiver works in the same way as an ordinary receiver to which the third method has been applied. With such receivers, an improvement may be obtained by turning the receiving set to a position giving the best results.

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The above which will dispose of several queries which we have recently received is reprinted with acknowledgment from the "B.B.C. Year Book," 1944.