

Verdict of the B.B.C.

THE B.B.C. were consequently advised that no objection would be raised to their instituting experimental television transmission if they desired to do so. Consequently the B.B.C. asked for a test.

As a result a demonstration was held on October 9 which was attended by Captain P. Eckersley, chief engineer to the B.B.C., and other technical and administrative representatives of that authority.

The opinion of the representatives was that, while the demonstration was interesting as an experiment, it failed to fulfil the conditions that would justify a trial through a B.B.C. station. The corporation concluded its official verdict by stating that it would be ready to review its decision if and when developments justified.

AS a result of the decision a director of the Baird Company told a newspaper representative that he and his co-directors were far from satisfied with the decision of the B.B.C., and that they would not take the matter lying down. It has been stated in the "Daily News" that the Baird Company do not think they have had fairplay. They may decide to go abroad and erect the necessary transmission station for the benefit of subscribers in England and other countries.

Sir Oliver Lodge, Dr. Roberts, Dr. Lee de Forest, Captain Eckersley, and other English experts have from time to time pointed out in clear and concise language and with strict impartiality the limits of present television systems. There is a consensus of opinion that until some radical and new discovery is made no system of television is likely to prove of any public service utility value. The present systems are essentially experimental, and suited only to the laboratory.

Interpretation of this Decision.

THIS momentous decision of such an authority as the British Broadcasting Corporation clearly indicates the position of television or radiovision today. The stand taken by "Popular Wireless," the technical English journal, in supporting the decision of the corporation, stands out in clear contrast to the views of some of the leading American journals, which in each issue vie with one another in predicting the wildest "Near Futures" of television. The last publication depicts on its cover in bright colours the receiver of the "near future"—multiple television—a receiver on which are appearing moving images from three distinct sources. The American with his customary optimism has seen more in the future of present television than has the more conservative Englishman. It remains to be seen who is in the right, if either; the B.B.C. may be too conservative, but in announcing its decision it is bearing in mind the fact that it has the interests of the English people to safeguard, and any unwarranted move may cause consternation among licensees.

The corporation is a Government organisation, and their decision denotes the attitude of the British Government, which has always been regarded as a world authority. To have accepted a system of which it had its doubts and which might subsequently prove to be

Direction-Finding

THE use of radio for direction and range finding has made great strides in the past few years, especially in the development of directive beacons for sea and air navigation. The United States Coast and Geodetic Survey has recently developed an interesting method of range-finding which makes use of both sound waves and radio waves. In making depth measurements off the coast it is frequently necessary for the survey ships to be out of sight of land, so that ordinary triangulation methods of accurately locating the position of the ship cannot be used. In such cases the position of the ship is determined by a method known as acoustic range-finding, in which the distance of the ship from shore is measured by the velocity of sound.

When the surveying ship has made a depth measurement, or sounding, a bomb containing a pound or so of high explosive is dropped overboard and exploded twenty or more feet beneath the surface.

THE sound produced is picked up by a submerged microphone or hydrophone located on the ship, and the impulse transmitted through a three-stage audio amplifier to the pen-actuating magnet of a chronograph, making a mark on a paper recording the strip. The sound of the explosion also travels through the water in all directions, and is picked up by hydrophones anchored

a failure would not be conducive to the prestige of the British Government.

in approximately fifty feet of water at two or three known points on the shore. Insulated cable connects these hydrophones to a three-stage amplifier at each shore station. The amplified signal actuates a relay which sends a flash from a simple low-power radio transmitter. The radio signal is picked up by a tuned receiver on board ship and amplified, and this current also actuates the chronograph pen before mentioned.

The paper strip or tape has been moving at a uniform rate during the time between the bomb explosion and the reception of the radio flash, and consequently the space between the two pen marks is an index of the time elapsed.

Accurate measurements have determined that the velocity of sound through sea-water is approximately 4920 feet per second, varying somewhat with the water temperature. For example, if the elapsed time is 60 seconds the ship is consequently approximately 56 miles from the shore station.

Two or more stations are required so that there may be no error.

THE system possesses certain difficulties of operation in some localities. Experience has shown that the apparatus works better where the bottom falls rapidly away from the shore, and where the water is cold and of fairly even temperature. Shoals also seem to present difficulties in the transmission of sound through water. The exact influence of each of these factors has not been fully determined, but active investigation is being carried on.

On the Atlantic coast of the United States, where the continental shelf extends for a good many miles off shore, and also where the water is compara-

tively warm, considerable difficulty has been experienced in getting the apparatus to work satisfactorily over any great distance. On the other hand, on the west coast, where these conditions do not obtain, excellent results have been achieved over a distance of about two hundred miles.

THE system has such attractive possibilities for the location of positions at sea rapidly and economically that development work will be rapidly carried on in an effort to perfect its use under all conditions.

Appreciation of Service

Practical appreciation of the service rendered by the Manawatu Radio Club's broadcasting station, 2ZF, at Palmerston North, in advising farmers in threatened localities of the danger on the occasion of the last flood, in the Manawatu district, has not been lacking.

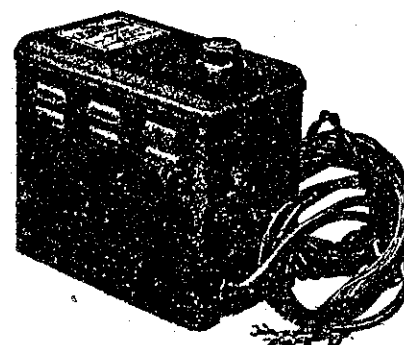
At the annual meeting of the club recently, Mr. H. Hamilton intimated that both the Manawatu and Sluggish River drainage boards had passed resolutions to forward letters of thanks to the club, and had jointly sent a donation of £5.

Another indication of appreciation was given by Mr. Arthur Akers, who considered that, if he had not been warned in the manner described, he would have been affected by the flood waters. He was able to move stock valued at £7000 or £8000 out of the danger zone, and had forwarded the club a cheque for £5 in appreciation of the timely warning given.



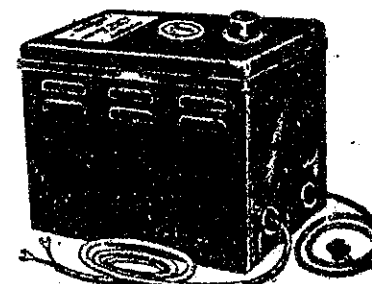
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