4. The Government accepted the recommendations of the Technical Committee, and orders were placed for the necessary equipment. Regulations were issued early in 1941 constituting an Emergency Fire Service and providing for co-ordination between this unit and the regular brigades. On the advice of the Chiefs of Staffs, the organization was developed on a modification of Scheme B and confined to the principal cities and larger ports, which were thought to be the only likely objects of a cruiser attack. Details are set out below, and it is sufficient to say here that by December, 1941, when Japan entered the war, the first order of 80 locally manufactured trailer pumps had been delivered and an emergency unit of 1,470 members had been recruited, equipped, and given the initial training. The standard of efficiency attained up to that time was limited by the supply of fire hose available. It will be seen below that we were unfortunately very short of hose when the war broke out, and during the fire "blitz" period in England in 1940 and 1941 we could not press our request for supplies. Pumps, transport, and most other equipment could have been improvised had the necessity arisen, but the shortage of hose was a definite bar to full efficiency. An ample hose-supply is essential for quick attack on incendiary fires which get beyond the "first-aid" stage, and until the later part of 1942 it was necessary to limit the training so that a proper balance was kept between training requirements and the conservation of hose for operational purposes.

5. The Technical Committee in preparing Scheme B, having in mind the problem of attack on a cruiser standard only, had recommended that the major fire-fighting provision be confined to the waterfront and business sections of the cities and towns, since these were considered the most likely objects of such an attack. It proposed that the fire defence of the residential areas should be left, so far as practicable, in the hands of mobile patrols equipped with bucket pumps and first-aid apparatus and supported by a limited number of detachments trained and equipped to operate from the mains. In the larger cities and most of the secondary ports the layout of the water-supply and reticulation is such that a complete breakdown in the suburban areas is not to be anticipated save under conditions of saturation attack, which could not be made by a cruiser force. Arrangements were made in all cases for men with special training to be available in case of attack to close down the water-supply valves as requisite.

6. The standard of efficiency reached by the 1941 organization must not be unduly discounted. The enthusiasm of the personnel, who were mostly young married men in the large-family classifications, compensated to some extent for the limitation of equipment. Both officers and men of the regular brigades co-operated to the full in the training of the Emergency Service, and it might fairly be said that by the end of 1941 it had reached a standard of efficiency reasonably adequate for the type of attack it was designed to meet. It had not been possible to develop the organization beyond the purely local stage and no provision had been made for reinforcement. It was nevertheless considered at the time, and subsequent events have not altered this opinion, that it would have been able to deal with the type of attack expected—say, a maximum of three or four major fires in Auckland and Wellington, and two in the other vulnerable centres.

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7. Some consideration had been given during the later months of 1941 to the question of fire-defence requirements should Japan enter the war. The whole position was reviewed following the attack on Pearl Harbour. It was clear that there was increased danger of enemy attack and that even a nuisance raid might be on an aircraft-carrier scale. It must be remembered that at this stage New Zealand had neither the effective air-raid-warning devices, nor had we the ships and communications system to prevent or give early warning of the advance of enemy shipping into New Zealand waters. The paradox existed that, despite our isolation, and to some extent because of it, we might have no more notice of an air attack, should one be made, than the British cities, which were only a few miles from the enemy aerodromes. An air attack was not, as in Britain, to be regarded as certain or even probable, but there was a possibility of it too definite to be disregarded.

8. It was this uncertainty which constituted the principal difficulty in organizing the fire defence. It had been clearly shown in Britain that the initial attack on incendiary fires by the civilian population was the most important single factor in the defence. If the fires are allowed to get beyond the incipient stage, the fire-fighting crews, with all their equipment, can at most limit the effects of the fire to one building, block, or area. Even in 1942 it was clear—and this aspect has been emphasized by subsequent experience both in Europe and in the Pacific—that in modern warfare the first attack is invariably from the air and intended to destroy or disorganize the civilian manufacturing, transport, supply, and communication centres on which the armed Services depend. It seemed to those responsible that the civilian public quite failed to realize during the months of 1942 the implications on themselves of the defence measures—the creation of a large home-service Army, erection of fortifications and beach defences, the provision of operational air squadrons, the erection of road blocks, &c.—being made by the Armed Forces from one end of the country to the other. The opinion expressed by many people was: "There won't be an attack on New Zealand and, even if there is, it won't affect us." It was not until compulsion was applied by emergency regulations that a reasonably effective fire defence was developed even in the principal centres most liable to attack.

9. This attitude is in marked contrast to the energy and enthusiasm displayed not only in the fire service, but by the workers in Civil Defence organizations, which were rapidly established both in town and country. Following on the December discussions, a conference of senior Fire Brigade Superintendents and representatives of the controlling authorities was held at the beginning of January, 1942. The measures necessary to meet the new threat were fully discussed and decisions made as to the equipment and organization necessary and practicable. During the following months effect was given to the recommendations of this conference on the lines indicated below.

10. *First-aid Equipment.*—We had no definite information at the time as to the type of incendiary attack to be anticipated. The indications were that, in part at least, it would involve the use of magnesium incendiary bombs of similar type to those used in the European war. It was decided to standardize for civilian operation on the bucket pump. This is a modification of the stirrup pump, which had proved so effective in Britain, in which the same type of pump is permanently fitted in a 4-gallon water container. It was considered that, if an attack did not eventuate, this equipment would have definite value for post-war fire protection. The bucket pumps were purchased by the Government and supplied at cost price to the local authorities in the vulnerable centres for sale to the public.