

damage caused by this weapon. Even the use of the atomic bomb does not affect this principle. It may alter fire-defence methods. It may, for instance, dictate the wider dispersal of the fire-fighting personnel and equipment, but unless the defence is prepared to throw up its hands, an attempt to save the area outside the blast is still necessary. We have in this war thought in terms of carrier-borne attack, but the range of even the present bombing planes—not to think of the future—makes a land-based attack by no means impossible.

68. These comments are directed to the suggestion that our line of thinking on fire defence has been wrong. The tacticians of the Armed Services appear to have considered this particular aspect of our defence a matter for the Civil authorities and entirely outside their orbit. Is that the case? It is assumed that the role of this country having regard to its size, location, and resources, is always likely to be a defensive one. Does defence of the supply and manufacturing centres, for instance, stop short at fighter planes and anti-aircraft batteries? Should not the tacticians be equally concerned with the service which limits the damage caused by that portion of the attacking Force which does get through the armed defence? The population can be sheltered or evacuated, but can the stores or factories? Should the requirements of a concrete road block at Lake Rotoiti, a R.N.Z.A.F. stores orderly at Te Rapa, or a Home Guard at Manunui be given preference over those of a fireman at Auckland—and why?

69. A study of our fire-defence organization at the end of the critical period (November, 1943) would show that our fire-fighting equipment was good in quality, suitable for its purpose, and, with the exception of hose and transport, reasonably sufficient in quantity. The hose shortage, incidentally, was probably the only deficiency which could not have been remedied unless we had started to prepare for war before the war started. Where we were deficient was in staff work, operational training, communications, and unified control of the service. We had, to use an Army simile, reached a good platoon standard of efficiency, but company or battalion training was for us a matter of the next war. Our defects resulted in the main not from any want of ability, technical knowledge, or enthusiasm on the part of the fire-service personnel, but rather from the wrong answers to the questions in the preceding paragraph.

70. Other causes are not far to seek. The staff of the Dominion Fire Controller consisted of three typistes and the part-time services of two clerks and one officer on equipment supply. His powers under the regulations were those of investigation and report. Consent of the local authorities was the condition precedent to any organization and had to be negotiated with each authority individually. The District Controllers were not relieved of their duties as city Superintendents except for one trip through their districts in 1943. Their "staff" was the spare-time work of the officers and men of their brigades, who could not leave the city except on leave, plus the seven E.F.S. officers referred to above, who were in control of over 2,000 emergency personnel. No transport was made available, even for such essential purposes as hose-laying, until 1943. As a concession, E.F.S. officers were allowed to use their own cars. Telephone and other communications services waited on other more urgent orders. Even full uniforms were not supplied because of priorities.

71. So long as fire remains a major weapon of attack, fire defence should be part of the general defence programme. It is necessary to take this opportunity of urging most strongly that if and when the Armed Services begin to prepare for war, and to the extent that they maintain preparation without immediate threat of war, the fire service should undertake corresponding preparation and maintenance. Organization should commence with the staff. There should firstly be continuous liaison both in peace and war with the staff of the Armed Services. At the stage where an active defence is being prepared as in 1942, specialist officers should be provided at headquarters level for equipment supply, personnel, training, mobilization, and liaison with Civil Defence. At district level, specialist officers are necessary for training, stores and equipment, transport, and mechanical maintenance.

72. The organization of the Emergency Fire Service on a Territorial Army basis was wholly successful so far as internal control was concerned. Where it failed was in its relationship with the regular fire service and with the Civil Defence organization. It is recommended that in the future planning, if the fire service cannot be independently constituted as the fourth arm of the Defence Forces, consideration should be given to its inclusion as a branch of the Army engineering services, rather than as a unit of Civil Defence. An organization analagous to that of the Army works section would appear to be appropriate. A precedent is available in the French regular establishment. Experience during the recent emergency suggests the following aspects favouring this inclusion:—

- (1) Mobility is essential for a wartime fire service as contrasted with the static role of Civil Defence. It is both impracticable to provide for full fire-defence requirements at each centre and unnecessary so long as adequate arrangements are made for reinforcement.
- (2) Inclusion in the Army would ensure the requisite transport and other priorities.
- (3) Unity of control, which is essential, would be ensured. The reorganization proposals (paragraphs 75–82) contemplate the retention of local administration of the peacetime service. The establishment of a National Fire Council on the lines proposed would simplify the wartime co-ordination.
- (4) The man-power difficulties (paragraphs 36–40) would be overcome. Provision could be made, as was done in Britain, to safeguard the pay and conditions of the regular firemen so that the wartime control should not reduce their numbers, status, or pay.
- (5) Mobilization would be simplified. Experience in 1942 shows that the bulk of the emergency personnel could be adequately trained on a part-time basis. For this purpose the billeting arrangements then in force could hardly be improved upon. An increase in the full-time staff would be necessary, but, these being Army personnel, there would be no conflict in pay and allowances with the regular service.
- (6) The wartime personnel have, in the main, the specialists function of providing water following the breakdown of the ordinary supply. The peacetime training would be directed mainly to this purpose. It could be conveniently confined to the principal cities and made the function of an engineering unit of the Territorial Army. This would ensure that the necessary equipment was maintained in adequate supply and in operating condition.

73. Whatever form of organization is decided upon for war, it should be adaptable for the control of earthquake fires. A comparison of photographs of Napier in 1931 with those of any of the bombed cities will show a marked similarity. The methods of fire control are similar, and operation from static