by air taxi services from the local aerodromes. As explained in Chapter 5 (paragraph 100) we do not consider that it would be an economic proposition to serve all such minor centres direct by scheduled services. The aerodrome at Alexandra should be developed to I.C.A.O. E5 standard. The other centres need only landing grounds of I.C.A.O. F or G standard. It would not be justifiable, for example, for Cromwell to develop a new aerodrome on the new site selected. The present landing ground could be adequately improved.

Invercargill

297. *Land aerodrome.*—We were asked to look at an alternative to the present aerodrome on a site at Sandy Point. The present aerodrome suffers from the disadvantage of being below sea-level and needing pumping. It appeared to us that hard runways would be necessary. Both this and the new site appear to be equally acceptable from the point of view of air operations, while the site on Sandy Point has the advantage of being above sea-level. We understand, however, that consolidation of the soil may be expensive. We are unable to offer any comment of value on these sites. The solution depends almost entirely on the result of engineering surveys and estimates.

298. *Bluff Harbour.*—We inspected Bluff Harbour and were shown plans prepared by the Harbour Board of seaplane alighting channels which could be made available. Superficial examination shows that the harbour is free from the disadvantages attaching to many harbours in New Zealand, in that it has open approaches in all directions except the south, where it is obstructed by the Bluff itself. While there is ample open water, only restricted areas have ample depth. It appears that, with careful layout of channels, adequate marking, and perhaps some dredging, Bluff Harbour would be suitable for the regular operation of flying-boats. In expressing this opinion, we should not be understood as expressing a view on the economic desirability of operating overseas air services by flying-boat to Invercargill. Like Otago Harbour, Bluff Harbour would be suitable for the operation of small seaplanes to the lakes and other water areas where no landing grounds can be made.

CHAPTER 21—AERODROME EQUIPMENT: FIRE AND CRASH

299. While we are not called on to comment in detail on the problems of aerodrome equipment, our attention has been drawn to one aspect of aerodrome equipment and manning the importance of which cannot be over-emphasised. The Director of Civil Aviation has been devoting vigorous attention to this problem but we could not help observing that the organisation and equipment at civil aerodromes in New Zealand for dealing with accidents resulting in fire is wholly inadequate. Great risk is at present being accepted.