

PART IV

AERODROME STANDARDS AND ECONOMIC PRINCIPLES

“(D) *The standards required of aerodromes in New Zealand for the operation of internal and international civil air services, and the economic principles governing the provision of aerodromes and air route organisation*”

CHAPTER 18—I.C.A.O AERODROME STANDARDS AND THEIR APPLICATION

239. There are three sets of I.C.A.O Standards which bear on the question of aerodrome dimensions—namely, AIR, OPS, and AGA. The AIR Standards prescribe a minimum rate of climb and require other elements in the performance of the aircraft to be determined and recorded in the flight manual. The OPS Standards prescribe the safety margins which should be preserved when operating *en route* and at aerodromes. They therefore provide the means whereby it may be determined whether in any particular conditions a particular aeroplane may be operated with safety over a particular route and taken off and landed at the aerodromes available. The AIR and OPS Standards relating to performance of aircraft are dealt with in more detail in Part III of this Report (Chapter 17). The AGA Standards prescribe the physical characteristics of aerodromes which will ensure safety for all aircraft of the class for which the aerodrome is intended, when operating in critical conditions. They provide a means of classifying aerodromes with reference to the length and strength of the main runway ; they prescribe means for determining the number and length of other runways ; they prescribe the treatment of obstructions on the aerodrome and in the approach and circuit areas ; and they prescribe aerodrome marking systems and procedures.

240. While the AGA Standards were drawn up with reference to the requirements of aircraft of varying characteristics, the Standards themselves do not relate the aerodrome classes to the characteristics of the aeroplanes which may safely use them, except in regard to weight of the aircraft and bearing strength of runways. No comprehensive analysis of the characteristics of existing and projected aircraft for this purpose appears to have been made. In the endeavour to assess the aerodrome requirements of New Zealand, we have collected the data which appear in Appendix H. The figures are far from complete, and their authenticity is in some cases open to doubt.