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c/o Defence Registry,
Victoria Barracks,
MELBOURNE. S.C.1.

30th October, 1951.

It has for some time been felt at D.S.B. that with the advances made in recent years in the cryptographic security of countries with which D.S.B. is concerned, and developments in the field of calculating machinery, we should look into the desirability of obtaining up-to-date apparatus to assist cryptanalytic research here.

2. A particular need has now arisen, as you know, with the very extensive use of Hagelin by the [REDACTED]. I understand that both G.C.H.Q. and BACOP are now employing high-speed machinery extensively for Hagelin solution, and it seems increasingly important that D.S.B. should be equipped with some form of high-speed machinery.

3. In addition to the [REDACTED] problem there are, of course, other considerations which appear to support this move. We are not very well informed on the extent of possible application of high-speed to other crypt problems, but it may well be that for future success D.S.B. will need to rely more on access to such facilities, and I imagine that, with the best of goodwill, both G.C.H.Q. and BACOP may find difficulty in devoting adequate machine time to problems primarily a D.S.B. responsibility, even should this be technically feasible or convenient. Also, as a measure of decentralisation and dispersal of British Commonwealth resources, it would appear advisable for D.S.B. to become to some extent self-contained in respect of machine aids to crypt-analysis.

4. As a first step, it would appear that we should plan to send one or more engineers to you for a period to study the problem on the engineering side in detail. You may feel that such officers could be most usefully employed in constructing a machine at G.C.H.Q. under the guidance of your own experts (I am assuming that there is no question of any spare machines being available, and that you might have difficulty in sparing all the resources necessary to construct one for us). At the same time, I understand that the Department of Supply here is undertaking certain research and development work in the field of digital calculating machinery, to which our Technical Section would have access on transfer to Supply. It might therefore be possible for the actual construction to be carried in Australia by personnel who had gained the necessary specialist experience at G.C.H.Q.

However, our ideas are at present necessarily very tentative and I should be extremely grateful for your advice on this matter.

PA
Sir Edward Travis, K.C.M.G.,
Director,
G.C.H.Q.

N. N. THOMPSON