

~~TOP SECRET FROTH~~



COMMONWEALTH OF AUSTRALIA.

TELEPHONE:
MXY 440

DEPARTMENT OF DEFENCE.

No. 3/6

MELBOURNE. S.C.1.

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Defence Signals Branch,
C/o Defence Registry,
Victoria Barracks,
MELBOURNE.

19th November, 1954.

Dear Harold,

COLOROB

Your memo. TD-3 of 4th October arrived as Mr. Fleming was preparing to depart on leave. He discussed it with me and asked that I should reply in his absence. I think he may, however, wish to discuss it with you after his return.

2. The present position with the COLOROB project is that, although financial provision has been made in Estimates and in the Three Year Programme for its purchase from GCHQ, Departmental approval for this action has not yet been sought. This has been deferred because, in discussion with Mr. Strath earlier this year, it became clear that he had certain misgivings about the project - along the lines mentioned in your memorandum - and we were anxious to have his support before proceeding with the project. I had hoped that the question would have been resolved during Mr. Oxford's visit to GCHQ earlier this year; I was very glad that you decided, subsequently, that Strath should also have the opportunity of considering it in more detail, during his current visit to GCHQ.

3. At the same time, we are under strong pressure from GCHQ to make a decision, since I understand that their development and construction programmes are being seriously upset by the continued delay. (You may recall that GCHQ stated that any delay beyond May, 1954, would have this effect). I therefore hope that - as discussed informally with Strath before his departure for GCHQ - it may be possible to clarify this matter on the basis of an interim report to you from Strath, before his return to Melbourne.

4. Referring to your para. 2, it may be as well to record the specific grounds on which we in DSB conclude that high-speed analytic equipment should be obtained -

- (a) it is essential to our attack on one of the important tasks of the Branch - [REDACTED]. This task is increasing significant to (particularly) Australian authorities; DSB is unable to make any real progress without high-speed equipment.

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- (b) all DSB crypt tasks are tending to become more complex; there is every indication that our future success will depend increasingly on the application of high-speed techniques. U.K. and U.S. advice strongly supports this view.
- (c) the diversity of D.S.B's tasks - ranging from [REDACTED] - makes it necessary that our machine facilities should be highly flexible and versatile. GCHQ - with considerable experience in this field - has advised that this requirement can best be met by investing in a general purpose device, rather than in a series equipments developed for specific, limited functions.
- (d) on over-all strategic grounds, and quite apart from the more specific peace-time requirements given above, DSB would not be playing a full part in the British Commonwealth Organisation if it failed to obtain equipment which would enable it to assume war-time responsibilities as a major Commonwealth Centre - conceivably as an alternative to the U.K. Centre.
- (e) all these factors, taken together with U.K. and U.S. advice we have received, indicate that D.S.B's capabilities and status - both in the Commonwealth and with the U.S. - will suffer if appropriate equipment is not obtained.

5. We believe, therefore, that some form of all-purpose high-speed installation is needed, and the Defence Committee has endorsed this view. Advice from GCHQ in September, 1953 (at the Melbourne Tripartite Conference), and on various occasions since then, has been to the effect that this need would best be met by COLOROB. Informal advice from the U.S. Centre also supports this latter point.

6. The extent of the staff commitment (your paras 4 to 8) is clearly of major concern to both Supply and this Department. On GCHQ advice, we have planned to use about six DSB positions for staff directly concerned with the operation and maintenance of COLOROB. Also, we envisage attaching one of our senior cryptanalysts (Mr. A.C. Eastway) to GCHQ for about twelve months, to be trained in the methods of presenting cryptanalytic problems to high-speed machinery, and thereby to help bridge the gap between our cryptanalysts and the machine.

7. Additionally, it is clear that COLOROB would draw heavily on "T" Section resources. I believe that the importance of the project would justify this. However, I had hoped that, of your estimate of a minimum of six



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"T" Section staff, several would already be "in post", perhaps in the form of such officers as Messrs. Overheu, Robinson and Watson. Technicians (as distinct from Experimental Assistants), in-so-far as they would be required for "maintenance" rather than "development" work, should by then be available from the establishment of this Branch. I appreciate, of course, that in a project of this nature, no clear distinction can be drawn between maintenance and development, and that, again, we would depend heavily on "T" Section for scientific direction of the work of DSB "maintenance" staff.

8. I am sure you will understand my anxiety to proceed with action to obtain suitable high-speed machinery for the Branch. I hope that the present doubts concerning COLOROB may be resolved by Strath's investigations, and suggest that the matter should be reviewed when he has submitted his findings to you.

Regards,

R. N. Thompson
(R. N. THOMPSON)
DIRECTOR, D.S.B.

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*Seen
by Mr. Brown
29/11/52*

My apologies for the inadvertent delay in getting this to you, & mainly the result of preoccupation with a series of overseas visits to D.S.B. in the last few weeks. I have just received a note from Dr Fox on COLOROB, which - as discussed with Mr. Fayal - seems to help clarify the problems.

R. 29/11