PIA 'R 7500 Ext.

GOVERNMENT COMMUNICATIONS HEADQUARTERS,

Room No. 3/2908

LIME GROVE,

G.C.H.Q. REFERENCE

Dear

information removed.

YOUR REFERENCE

Declassified by ASD - 2024

National security and/or personal

RUISLIP, MIDDX.

EASTCOTE,

Many thanks for your long and interesting letter which I was very glad to have: you seem to be having quite a hectic time but I imagine enjoying it even if it is putting years on your life.

Now to take the various points you raise. First and most important, Colorob. May I say that I also am quite amazed that this should be on your plate; I have now read all the back correspondence (only some of which I had seen before) and discussed with Jerry Morgan and later with the Director. We all agree that many of the considerations involved - indeed the main ones are outside your field and Morgan will be writing at length to John Rendle about the whole subject. Will you therefore 'lay off' as far as you can pending the arrival of Jerry's letter (he has written a brief letter to Rendle about a fortnight ago which will have crossed yours in the post). For your information here is a summary of the position as I see it.

First, the main purpose of a Colorob for D. S.B. is not its immediate uses - it will have some (and you have summarized these very adequately in your letter) but it is doubtful whether in themselves they would justify the expenditure of the money. The real value of Colorob as we see it (and I think this goes for D. S. B. ) is as an insurance against being inadequately equipped in time of war when so much of the British effort on the Far East problems would be in Australia: Colorob will be a powerful general purpose crypt engine designed (by means of unit construction) in such a way that it can be added to at need - in Geoffrey Timms words it will be like a meccano set from which one can put together the bits needed for any particular job. It is thus particularly good type of machine to have as an insurance against war where we do not know precisely what problems will face us but can be sure that we shall have some problems for which Hollerith equipment alone will not be adequate.

The second main point is that no decision so far as I know has yet been made on where to build the equipment. (two Australian engineers) joined X in October 1952 to learn about Colorob and I thought that a decision on whether to build the machine here (as we think would be best) or in Australia would not be taken until they were considerably further on in their training. In view of all this your advice cannot be the decisive factor; I think you should not therefore attempt to advise for or against construction but should merely give factual comment on where high-speed equipment would help you if you had it now. Please write (or signal) me again if this letter does not satisfactorily answer your question; I hope that Jerry's letter to John will clarify the whole position.

Now your second brain-teaser, high-grade research.

ave up our effort on we made it quite clear that we should be very When we gave up our effort on glad if D.S.B. could take it on but at that time their resources were nowhere near big enough. My own view is this. high-grade problem is of high-grade which you know so well. the same kind and magnitude as the To make any serious inroad on it a large staff and plenty of machine time is needed - we had 30 people on it here at one time (and now the problem is bigger) I think therefore you should consider carefully, before letting any production problem suffer, whether the scale of the high-grade effort you can put in is sufficient to give you a reasonable chance of making a worth while contribution to the attack. I am very doubtful whether - unless D.S.B. get a large increase in staff any attempt to search for widespread re-use of key would be worth while.

E ... JA 24 \ 285

All this is not to say that we would not welcome on D.S.B. attack on high-grade; I regretted very much having to give it up here and dislike having a major problem with no Commonwealth effort on it. I do think though that the considerations which lead us to drop it should make you wary about taking it up again prematurely: we gave it up because our resources were too small for and we decided to try to make a good job of what we did do rather than to spread our staff too thin in an attempt to tackle everything.

As regards I know so little about their high-grade systems that I have no opinion of value. It all depends on what kind of high-grade it is. If it is difficult but not too expensive in man and machine power I certainly think you should have a crack; this is just the sort of thing we should always attempt and where extra resources are least important. If on the other hand it is a matter of laborious search for problematical depth I am more doubtful if it is worth while. Hope this comment makes my views clear - I imagine they agree with your own. Shall be glad to hear what you finally decide to do.

I have no useful comment on your other three problems. On (iii) and (iv) I await your own recommendations and comments with interest; on (v) I cannot judge, not being on the spot - don't let get too mathematical by the way (I had heard he had a slight tendency that way and can imagine that it might and let you know result but am not be so). Will take up very hopeful.

Sorry you have had housing troubles but glad you are now installed. Hope you get some table-tennis sometimes - did you play on the boat? Regards from all here - and also to all at D.S.B. especially all H types (both our own and Botterill, Warmington and Eastway whose visits here we enjoyed so much). This letter written while Arthur is on leave, otherwise I am sure he would

want his regards added. All good wishes from all your finds here as will as from myself - you are missed in H5 I can amore you, though Ray is doing oney well. Yours with the rest of the restriction of the Yours Yours with the restriction of the Yours with the restriction of the Yours.

and the second might be seen and the second second second

Anite rate (G.) for a control of the control of the

The continue of the common of the continue of

H.C. Ricketts, Esq., C/o Director, D.S.B.

and the time the most result in the