## Office Memorandum • United States Government

TO: Mr. Friedman

DATE: 11 June 1952

FROM : Mr. Barlow

SUBJECT:

Discussion with Lt. Col. Henn-Collins, Royal Signals, Concerning

ECM/SIGABA Principles

1. In London during the 1951 Conference, Lt. Col. Henn-Collins was heckling me concerning the U.S. policy of non-disclosure of the ECM/SIGARA to the British. He described with considerable enjoyment his experiences in 1942 and 1943 in North Africa where for many months he was a SIGABA repairman for a section of the 9th Air Force. He described repair on the SIGABA with the SIGKKK maintenance manual and related that after he had been using this manual for months to repair machines, he finally decided that it would be simpler if he were issued a SIGKKK rather than have to borrow it from the Signal Center Officer on each occasion. However, when he wrote a letter formally asking for issuance of the manual, he described the hurried confusion of the 9th Air Force upper echelons as they refused his request. However, he still maintained the SIGABAs. When bluntly asked exactly how much he did know, he was able to describe the crypto-principle in complete detail, apologizing for the section that he could not remember, namely the exact banding on the end plate of the control maze, but otherwise the diagram he drew was completely accurate.

2. He also had related to Dick Chiles the fact that he didn't think much of the crypto-principle originally, being convinced that the future trend in the cryptographic field was toward electronic on-line equipments, but later on when "Circuit Mercury" was designed, he resurrected the principle and "improved it sufficiently to be adequate for their purposes" and gave the principle to the RAF for incorporation in "Mercury" in 1944.

HOWARD C. BARLOW Chief, Communication Security Fqu'rment Division

Howard OBarlow