MEMORANDUM TO: J. R. Killian

FROM: B. McMillan

SUBJECT: Risks involved in the Nike-Zeus Program.

1. There is still the technical question, whether the Soviet use of decoys can make the Nike-Zeus system too expensive for effective use. Only further research can resolve this. Should it be resolved completely unfavorably, what is lost is the money spent on other aspects of the program during the period of this resolution. It seems to me that if the program is expected to be effective at all, the risks undertaken by delaying it during the period of uncertainty far exceed the amount that is risked by continuing.

   Admittedly this is an operational, rather than a technical, issue, but the following numbers, tentative as they may be, may illustrate the kind of problem and its magnitude.

2. Assume that the Soviets will have 300 IC ballistic missiles operational and aimed at SAC by June 1963, and 800 by January 1966 (The NESC assumed a total of 500 as early as June 1961). Compare this threat against our Nike-Zeus capability as projected from the Skifter Committee's Schedule A (fast deployment), Schedule B (slow deployment), and these schedules delayed one year for further R&D. For these schedules, the earliest date at which we could reasonably guarantee the survival of 10 or more SAC bases are:

   A     B     A delayed     B delayed


3. NIE 11-5-58 assigns the Soviets a capability to produce missiles at a rate much greater than that implied by the figures above, and the current estimates of Soviet nuclear materials permit a much greater buildup than postulated above. It seems to me then that there are only two logically sensible alternatives:

   (a) assume a great buildup of Soviet missile force and therefore, or for other reasons, conclude that Nike-Zeus can never be effective, hence cancel it as an AICBM program.
(b) assume a more moderate buildup, and therefore that Nike-Zeus has a chance to be effective in deterring attack. In this case, production money in 1960 buys a year's protection, and Schedule A buys one and one-half years over Schedule B. With this protection of SAC is also bought a considerable protection of, say, cities by diversion of his available force.