

SAPC-10098
Copy 6 of 5

25X1A9a

MEMORANDUM FOR: [REDACTED]

29 October 1956

SUBJECT : Rainbow Investigation

25X1A2g
25X1A2g
25X1A5a1
25X1A5a1

1. During one of your several absences Colonel Pelligrini paid me a call. One subject he mentioned was an Air Force Project [REDACTED] which, I understand, involves a research contract with [REDACTED] of that company apparently is knowledgeable of the Project and perhaps in charge of it for the Company.

2. This Project seeks the same objective as Rainbow. It involves an investigation of the phenomenon first observed, I understand, in connection with missile development, that an ionized layer around the shell of a vehicle greatly reduces or eliminates electronic reflectivity of the vehicle's surfaces. In the case of missiles the ionized layer is essentially heat generated but the possibility of generating it from a power source is being investigated. The great advantage this technique is believed to possess is that the ionized layer is non-frequency limited in its effect. Accordingly, if such a layer can be established and maintained around any vehicle, the protection covers all frequency ranges. The quantitative effectiveness of the protection with respect to such variables as range, power output of the radiating set, and ambient conditions of atmosphere and temperature, are among the matters still under investigation as a means of inducing ionized layer.

25X1A9a

3. You may have rejected this development in the early stages of Rainbow in which case pay no attention to this note. If you have not, I wonder if it would not be desirable for you or [REDACTED] to find out about it and to talk to one or more of the technical people who are working on it. I have a note to the effect that a Colonel Israeli at the Weapons Guidance Laboratory is more fully informed of this than Colonel Pelligrini but I believe the latter would be the proper point of entry through which to obtain access to the knowledgeable individuals and clearances to discuss the Project with them. Unless you feel such exploration would be a waste of time, I will ask that [REDACTED] regard the Contracting Officer's copy of this memorandum as a request to start such investigation after discussion with you.

25X1A9a

RMB:djm
1-Addressee


RICHARD M. BESSELL, JR.
Project Director

2-Dep. Pro. Dir. 3-Cont. Offr 4-RMB Chrono
5-Proj. Chrono