

EXHIBIT D

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23 June 1970

MEMORANDUM FOR: ~~C/AMBSD~~

SUBJECT : Review of ~~EA 3167~~ Study

1. In this study, nineteen subjects were divided into three groups which were treated with dosages of ~~2.7, 3.2, and 3.8~~ units/kg of experimental agent ~~3167~~.
2. In the first group of six subjects, measurements of temperature, blood pressure, respiration, pulse, and pupil size, although showing some variation, did not reveal significant differences which could be related to drug symptomology. In every case, undesirable symptoms were noted, all six subjects experiencing "drowsiness" and "dry throat." Of the three cases of hallucination and mental incapacitation, only one was of a serious nature and this admittedly may have been due to an additional accidental dose of the drug.
3. The second group (~~3.2~~ units/kg) exhibited a variety of undesired side effects: drowsiness, dry or sore throat, nausea, loss of taste, blurred vision, heaviness in legs, lack of coordination. All seven subjects in this group experienced at least three of these symptoms. Four of the seven suffered severe mental incapacitation accompanied by heightened symptomology. In three of these seven cases a high pulse rate and dilated pupils could be related to drug action though the pupillary response was much stronger. In subjects not strongly affected by the drug, a lower pulse rate sometimes coincided with drowsiness and impairment of coordination.
4. The group which received the highest dosage proved as variable as the others. Although each subject exhibited the usual symptomology, only two of the six were strongly affected. Those two hallucinated and

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GROUP 1
Excluded from automatic
downgrading and
declassification

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dropped to scores of zero on their numbers facilities tests with concomitant increases in pulse rate and pupil size. The four other subjects showed thought hindrance and lack of concentration but apparently as a consequence of extreme drowsiness.

5. In the majority of cases, the side effects appeared within 4 hours after injection. Their duration varied from about 4 hours to 19 days. The desirable primary effects generally did not appear till after the side effects were evident and in every case had a shorter duration, varying from 1 to 90 hours.

6. In the instance of mental incapacitation, the more pronounced effects appeared to be inability to relate to surroundings or time, inability to remember names, and poor performance on numbers facilities tests. Hallucinations were of both visual and auditory nature. Patients would see and hear persons not there and speak to them. Frequent complaints were bright lights or objects on the wall and roaches or flying insects in the room.

7. This study was somewhat unprofessional and a trifle slipshod. The results are inconclusive. Apparently, the drug is not reliable at the dosage levels tested: only nine of the nineteen subjects experienced "desirable effects" (3 out of 6 at $\boxed{2.7}$ units/kg; 4 out of 7 at $\boxed{3.2}$ units/kg; 2 out of 6 at $\boxed{5.8}$ units/kg) but all nineteen exhibited undesirable signs and/or symptoms.

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