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FROM: ~~_____~~, H.D., Consultant

SUBJECT: INFORMATION FROM EUROPE RELATED TO THE IGO-DEPRESSANTS

6 August to 29 August 1952

SECTION A - Summarizing Report

SECTION B - Daily Notes

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September 4, 1952

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While giving several lectures in Europe during August, 1952, an opportunity was afforded to obtain further information on the ego depressant ("truth serum") drugs in line with _____ under the Medical Research and Development Board. The discussions with the several Army Attachés described in the attached Daily Notes were suggested by the thoughtfulness of _____ of the Office of the Surgeon General and were greatly furthered by the courtesy of _____, who sent a notice of my visit to the Army Attachés mentioned.

It seems clear that the ramifications of this subject (the ego depressant agents) are far wider than they had seemed to me at least at the beginning of our work in this field. It is evident now that the agents which fall within this group could profitably be attacked from three directions:

- (1) as aids to obtain suppressed information (there are therapeutic as well as military sides to this)
- (2) as threats to security when used by an enemy agent (they jeopardize integrity; we need to know the signs and symptoms of their use for security purposes)
- (3) as tools of biological warfare or chemical warfare (the lysergic acid derivatives, coming as they do from ergot could be considered under either heading)

In earlier reports to the Surgeon General I have dealt sufficiently with items #1 and #2. (See Progress Reports _____) The use of these agents as offensive tools may already be under study. They should be. The dose of the agent we are now working on, I.S.D. 25 (a diethyl amide of lysergic acid), is so small, in gamma

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 (thousandths of a milligram) one can calculate that the water supply of a large city could probably be disastrously and undetectably (until too late) contaminated with quantities apparently readily available. (See remarks of Professor ~~_____~~, ~~_____~~ ~~_____~~ 24 to 28 August, in the attached Daily Notes) It should not be a difficult trick to sink a small container of this agent near the main outlet of water storage reservoirs, and the container arranged to "excrete" a steady flow of the material over a period of many hours or days.

If the concept of contaminating a city's water supply seems or in actual fact is found to be far fetched (this is by no means certain), there is still the possibility of contaminating, say, the water supply of a bomber base, or more easily still, that of a battleship.

For centuries in Europe outbreaks of "The Dancing Madness" have been variously attributed to mass hysteria, to ergot poisoning, and so on. Within the year such an outbreak occurred in France. This was attributed to the use of infected grain. There is some reason to believe that the grain involved came by mistake from an area in France where ergot production for experimental purposes is being carried on. (See the attached Daily Notes, ~~_____~~ 21 to 24 August.)

Our own current work contains the strong suggestion that L.S.D. 25 will produce hysteria (unaccountable laughing, anxiety, etc.). While our studies so far have been carried out in isolated individuals, one at a time, it is well known that hysteria is compounded when several vulnerable individuals are together. The lysergic acid derivatives can produce a temporary state of severe imbalance, hysteria, insanity. It requires little imagination to realize what the consequences might be if a battleship's crew were so affected.

While biological warfare is outside of my field of competence, I understand that a chief problem is to get toxins in sufficient concentration in contact with a significant number of people. The use of lysergic acid derivatives indicated above

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may well be an exception to this limitation. The matter urgently requires further study. Conceivably this might be an unusually merciful agent of warfare: temporarily nullifying the individual's effectiveness, but not permanently damaging him.

I have outlined the above points in a somewhat dogmatic way to make the point clear. Needless to say much more work needs to be done. We need to know, for example, if ordinary chlorination of the water will oxidize the lysergic acid derivatives. Evidently the heat required to bake bread does not. What are the effects of air, light, etc. Are there antidotes, etc.? In the doses we have been using, about a gamma per kilogram of body weight, the maximum effect is attained in about two hours after ingestion by mouth, and the duration of effectiveness is about six hours. We need to know the effects of large doses, of prolonged administration of small doses and so on, to mention a few matters for study.

These agents are being studied by some 200 investigators (see ^{only} notes from 24 to 28 August) probably on both sides of the Iron Curtain countries. I earnestly hope that the United States will not get behind in this field for want of an organized plan of attack.

New agents are being prepared certainly in probably at and probably at (See Daily Notes, 21 to 24 August 1952, and 24 to 28 August) Professor has promised to send me for study the new L.A.E. (a mono ethyl amide of lysergic acid). This is said to be more excitant to normal individuals than is L.S.D. 25.

MISCELLANEOUS OBSERVATIONS

1. The dinoflagellates. See Daily Notes, , 10 to 14 August.
2. Persisting insanity following two exposures to the war nerve gases. This equivocal situation is referred to in the Daily Notes, 14 to 17 August. It will bear further study.
3. Dr. , associate of Professor is

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coming to America for three months. He will arrive about October 15. Part of this time he will be my house guest and could probably fill in a good many more items of desired information.

If information is wanted about Professor ~~_____~~'s interests (see Daily Notes, ~~_____~~, 21 to 24 August, and ~~_____~~, 24 to 28 August), a good background could be laid in the forthcoming visits to my laboratory of scientists from the

~~_____~~ with continuing contacts with Dr. ~~_____~~ associate

Within some months I shall have a visit from Dr. ~~_____~~ of the ~~_____~~. He is skilled in the field of the war nerve gases and has in the past talked to me apparently very freely of his work.

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