R/B, I, 42, 2

22 October 1951

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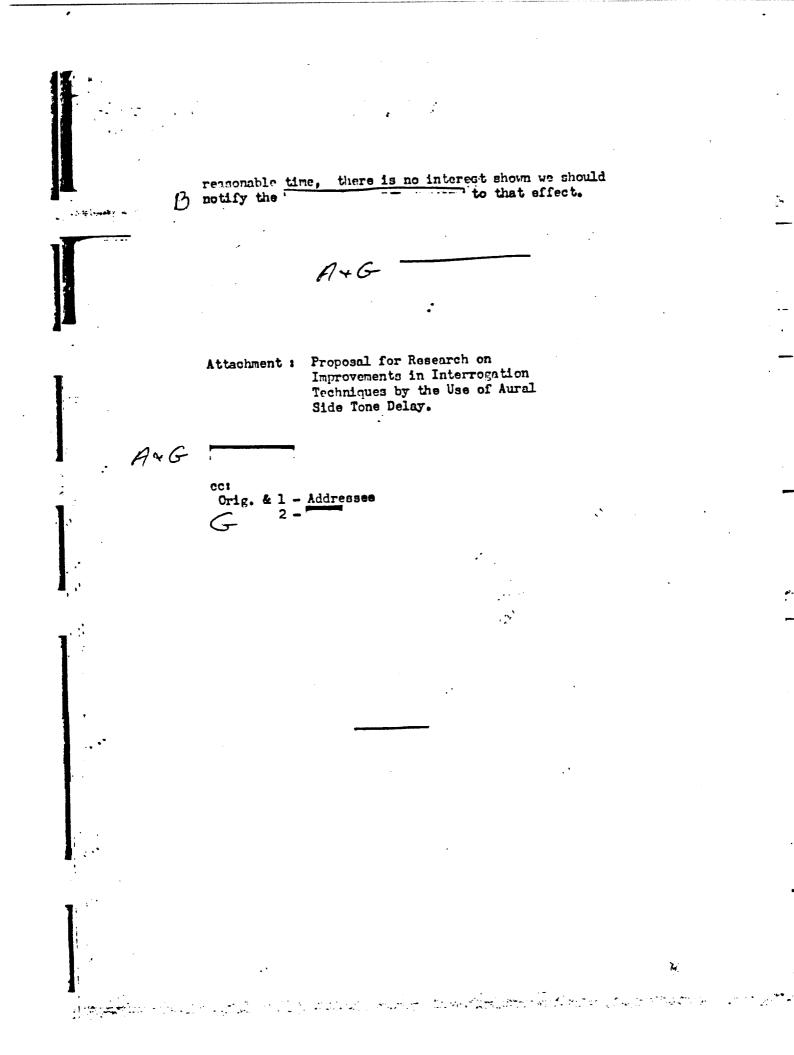
SUBJECT

: Proposal for Research on Improvements in Interrogation Techniques by the Use of Aural Side Tone Delay.

1. Approximately two weeks ago, , called me because of his knowledge of my previous connection with research matters and brought to my attention the subject proposal, copies of which are attached hereto. in town and arrangements were made for myself and to witness a demonstration. We were very much impressed with this demonstration and feel that this device may be possibly used in connection with CIA. H endeavors. This proposal was referred to of I&S. It has since been returned to me with a notation that this particular device would not have any feasible use in their program.

2. I am passing this on to you in order that you G may put this proposal into the proper channels, CIA, wide because I believe it has a potential use in some of our operations. It is my suggestion that it may be of value to determine how well our agents may be able to react under pressure. It could also be of use in connection with prisoner of war interrogation. It appears also, as was demonstrated, to have a potential use in connection with the program wherein after the interrogator has developed critical areas, by skillful use this particular type of detection might result in a confession. If any activity here is interested in a demonstration or development of this proposal, I would be very glad to assist them in making arrangements as far as how to contact the proper If, within a people in the

reasonable time, there



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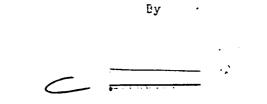
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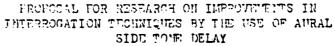
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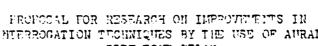
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Troposal for Research on Improvements in Interrogation Techniques by the Use of Aural Side Tone Delay

As a result of some discussions between of the and the undersigned on the subject of observations on the effects of side tone delay and the possible explicition of effect to criminal and prisoner of wher interrogation, some experiments were conducted to gain an idea of the possible scope and potential importance and practicability of the technique.

Subsequently, in a domonstration, \_\_\_\_\_\_, witnessed by of the \_\_\_\_\_\_, a sub-\_\_\_\_\_\_, a sub-\_\_\_\_\_\_, a subjoct, who had come in for routine lie-detector examination in connection with abruptness when he was subjected to side tone delay during his answers to the perticular questions to which he had previously given abnormal blood pressure responses under test with the \_\_\_\_\_\_ Folygraph.

The apparatus utilized was comparatively simple, consisting of a Regnerord Model IT53-A4 Recorder and Megnerord Model IT63-J Amplifier. This recorder has three magnetic heads for erasing, recording and monitoring a lane as it is pulled through the system at 7.5 inches per second. The recording band is separated from the playback head by 1-1/4 inches, providing a fixed delay of about 0.2 seconds between a sound uttered by the subject into the recording microphone and the recorded-playback signal in the earphones worn by the subject being interrogated. An alternative delay of 0.1 second, obtained with the same record-playback headspacing but with a tape speed of 15 inches per second is available but preliminary tests indicated, as was to be expected from the subject than a 0.1 second delay has considerable more effect on the subject than a 0.1 second delay. Consequently, the 0.2 second delay was used in further testing.

The subject strongly maintained his innocence in proliminary questioning and during and after the test using the Polygraph, which records blood pressure, heart rate, respiration rate and muscular normaont. The polygraph record showed abnormal deviations during several key questions. The subject was then interrogated with the aid of the tide tone delay apparatus using the key questions and a variety of irrelevant questions. The tide tone delay was employed during the enswers to the questions which had previously given abnormal polygraph responded and was cut out no that there was no delay during the answers to questions which had occasioned no abnormal polygraph responders. After concluding this part of the interrogation the record was played back and the subject was asked the reason for his difficulty in giving answers to the key questions. The confession followed almost immediately.

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It should be pointed out that this technique, or a refined redification of it, if employed with an innocent subject who has given pseudo-guilty reactions, cannot result in fake self-incrimination in the nature of things, but at most would result in a somewhat confused state of mind on the part of the subject.

It is therefore cur desire to pursue this line of investigation and to devote particular attention to several points. These are:

1. Through investigation of the variables such as length of delay used, the smooth variation of delay during the interval of passing from an irrelevant to a key (guilty response) question, the timing of questions, the reading of a prepared statement versus questioning during the test, the length of answer desired from the subject, etc.

2. The adaptation of the technique to prisoner of war interrogation, since we believe from these preliminary experiments that striking increases in speed and efficiency of the interrogation and subsequent divulgence of desired information may be found possible.

Z. The invetigation of remote reading instrumentation, since it appears to us that one of the important differences between criminal and prisoner of war interregation lies in the non-volunteer nature of the latter and therefore questioning without instrumentation attached to the subject may have decided advantages over the usual polygraph technique. It appears reasonable, for instance, that remote indicating infra-red radiation lavel indicators, which have reached a high degree of development in other fields, could take the place of the blood pressure polygraph attachment mithout the subject being aware of the measurement taking place. This assumption is based on what appears to be a reasonable expectation of a heart rate, skip radiation correlation.

4. The investigation of the possibility of producing side tone delay and allied effects without the use of earphones. It is believed reasonable to expect that by use of a microphone, estensibly for recording purposes, but which is a modified threat type of microphone so that undesirable feed-back can be avoided, coupled with focussing speakers, that reise the level of sound in the vicinity of the subject's cars cufficiently above that of his direct voice level so that he is sware only of the sound from the speakers, the effect of side tone delay may be pained without attached comphenes. This may be desirable for non-volunteer questioning.

5. Ecception detection nolygraph techniques have not reached the state at which their use is simple and automatic. As a metter of fact, sober analysis shows that highly experienced encentors and interpreters are a prime necessity because of wide individual difference among subjects. It may ultimately prove possible, however, with improvements in polygraph techniques to experts directly side tone delay by abnormal polygraph responses. Heedless to say, the metter is relatively simple from a mechanical and electronic point of view. Serve mechanism techniques would provide wide latitude in the selection of desirable response characteristics. If lie-

1.1.1 detrotor techniques can be sufficiently improved the direct control of side tone dolny will be an almost immediate reslity.  $\mathcal{O}$ C0 1 ى ئېڭى بىر بەر بەربە بەر بارىيى ئېچىكى تېچىكى يېچىكى بەر بىر يېچى بەر يېچى بەر بىر يېچى بەر يەر بەر ب and the second second С. 4. . • : .: · . and a start of the second s · • • It might be stated at this point that if the

agreer to choose this laboratory for the experimental work suggested that the business case lood will have to be reduced to recommodate the project. However, it must be further stated that the experiments, by necessity and for adequate results, must be administered using actual informatory case subjects. It has always been the allegation of that failures in lie detection experimentation have been due to the use of experimental case subjects who demonstrate a willingness to cooperate so that the experiments will be a success. Actual case subjects, by the nature of their plight, will not show the same willingness to cooperate to assist the experiments.

To believe - facilities are adequate and actual case lord sufficient to complete the experiment.

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This preliminary proposal is submitted to the for the purpose of ascertaining the possibility of naval interest in and financial support of a resourch program along the lines discussed above. It is foreseen that a full time investigator will be required. Instrumentation, some of which is available from stock and some of which will have to be specially designed and built, will be required. will serve as director on a part-time basis.

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Very truly yours,