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INTRODUCTORY MEMO

SEP 70

SUBJECT: Research Into the Cryptologic Aspects of E \bar{S} P

This paper together with its appendixes and inclosures is intended to present the first of a series of contributions toward a more complete knowledge of certain special factors bearing on threats to COMSEC. In particular this study seeks to increase our knowledge of one factor known as PSI which is presently little understood and could considerably enhance a human being's capability to guess the correct order of randomized key settings or the relationships between our operations code (KAC's) groups and their meanings, the underlying plaintext of an encrypted message or to influence an individual's use of keying material to a hostile analyst's advantage.

A. In order to make this first study as meaningful as possible it was decided to:

1. Make an over-all survey of the investigations presently conducted into the PSI factor to determine:

a. Which aspects of the factor are most closely related to the problem of the human ability to correctly guess randomized cryptographic information at better than chance expectancy on a continuing basis.

b. Which environmental characteristics enhance or retard the manifestations of the PSI factor.

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c. What are the most useful sources of information available to keep abreast of the latest meaningful developments in PSI research, with special attention paid to sources related to Soviet Bloc efforts in this field.

2. To build, under professional supervision, a PSI experiment utilizing all factors possible which are known to enhance PSI performance and particularly to build an experiment which is specifically related to the COMSEC question of guessing randomized cryptologic information. Such an experiment would serve a dual purpose.

a. To isolate subjects which appear to be capable of demonstrating a more efficient use of the PSI factor than the average person. (See Inclusive C)

b. To provide a vehicle for testing such a subject in order to learn more about the factors which enhance or inhibit the operation of the PSI factors. Especially in the cryptologic environment.

3. To develop a method of training talented personnel in the cryptologic uses of ESP.

B. To date, the following steps in the PSI study have been accomplished on a time available basis.

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1. A survey has been made of the work being done in the field of PSI research (See inclosure A, appendix A, and inclosure C, appendix A, and inclosure D).

2. PSI factors most directly related to the COMSEC threat have been tentatively identified.

a. Telepathy (thought transference).

b. Clairvoyance (ability to observe objects not available to normal sensory detection) (see inclosure C).

3. With the assistance of professional PSI and psychological experts within the intelligence community,* a cryptologically appropriate telepathy/clairvoyance experiment has been designed which is intended to assist in the selection of talented subjects and test such subjects to determine their degree of dependability of their PSI performance. The experiment is also constructed in such a way that it will utilize a maximum number of performance enhancing factors. (See inclosure C)

It will be noted that the testing method used bears some resemblance to that of Dr. Rhine, in particular. There are however, some notable differences.

a. The material is cryptographically constructed using NSA random generation.

b. The subject is forced to make a double guess or target material which thus yields far more performance characteristics to subject to statistical and psychological analysis.

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c. The subject receives prior motivational conditioning.

d. The target material has realistic or life-like characteristics and can be tailored to the subjects preferences.

5. Current sources of PSI experimental research have been located and are being utilized to enhance NSA knowledge of this field. In particular note Soviet Bloc material in the inclosure B as well as general material sources in inclosure A (Selected Bibliography). It is interesting to note that Soviet experiments are funded under the ministry of defense and are mainly of the telepathy communications variety.

6. At the present time real target tests are being programmed, using individuals isolated by the above mentioned research tool. IBM cryptographic key cards will be among the materials tested. Preliminary tests already indicated that this may be a more meaningful exploration than was originally expected.

7. Research into psychokinesis indicates spontaneous episodes and controlled experiments have an electromagnetic effect. An experiment is being designed to test the effectiveness of PK in jamming modern low voltage electronic communications security equipment. Some spontaneous PK events have indicated that persons with a low frustration tolerance and no normal outlet for this

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energy are prone to release this pent-up force through the unusual PK channel. Being aware of those relationships, we are designing our experiments around such persons and suitable frustrating stimulus, which they can only halt during a specified period of time by using PK to alter voltage in a target circuit.

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