[redacted]

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TAB I

SRI International

Final Report--
Covering the Period 1 October 1985 to 30 September 1986

December 1986

SCREENING AND SELECTION OF PERSONNEL: THE PERSONALITY ASSESSMENT SYSTEM (PAS) (U)

IV METHOD OF APPROACH (U)

A. (U) Analysis Domain

[redacted] The domain of this meta-analysis includes all [redacted] applications and psychoenergetic research conducted at SRI International, or under the auspices of its subcontractors, from 1 October 1973 to 30 September 1988. A priori declared demonstrations or other activities that were not under the control of SRI International were not included in the documentation. All other forms of experimentation were included in SRI International technical reports, unclassified journals, or publications, and thus were part of this analysis. This database comprises 117 documents with a total of 5,025 pages.

(U) By definition, there is no file drawer problem in this analysis; all items that met the above criteria were included regardless of their results. Care was exercised to avoid multiple entries of the same data.

[redacted] All psychoenergetic phenomena fall broadly into two classes:

(1) Information Processes—those phenomena that involve a passive transfer of information (e.g., remote viewing, search),

(2) Causal Processes—those putative phenomena that involve an anomalous interaction with matter (e.g., remote action).

The psychoenergetic effort has been divided into various categories within these processes. The various categories within this domain are defined as follows:

(1) Forced-Choice—remote viewing where the targets are drawn from a limited (and known) set of potential symbols (e.g., the integers 0, 1).

(2) RV-Lab—remote viewing where the targets are drawn from a large set of potential material (e.g., photographs of natural scenes, natural physical locations), and the experiments are conducted under strict laboratory conditions.

(3) RV-[redacted]-remote viewing where the targets are drawn from specific targets of interest [redacted]

(4) Search—remote viewing where the targets are generally known but their location is unknown [redacted]

(U) For the purpose of this analysis, all putative causal-process experiments are considered under the general heading of remote action.

(U) Figure 1 shows a schematic representation of these categories and the total number of individual trials that were conducted within each category.

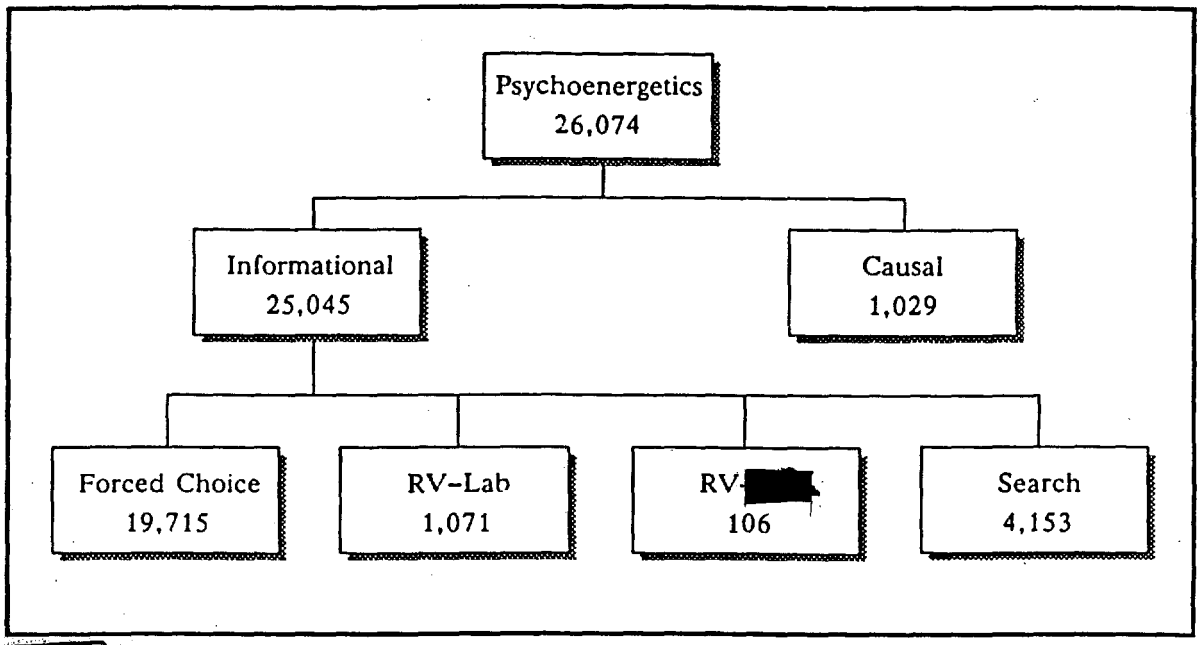

FIGURE 1 (U) CATEGORIES AND NUMBER OF TRIALS

The total number of psychoenergetic trials (26,074) was collected in 154 different experiments involving 227 different subjects.* All the data were entered into a computer database management system (DBMS).

B. (U) Database Management System

1. (U) Database Requirements

(U) One of the main purposes of performing a meta-analysis is to be able to look at data gathered from multiple studies conducted under a wide variety of circumstances. In order to collect and store the data in a meaningful way, one must know what kind of data manipulations will be performed. To evaluate the effect of certain parameters on psychoenergetic functioning, we needed to focus our attention on the conditions of a wide array of potentially important variables. As a result, the database design is primarily determined by the data and provides for the selection of information, by experiment, given parameter specifications.

* (U) The number of subjects does not include the preliminary mass screening participants. The formal screening participants were, however, included in the analysis.

V RESULTS AND DISCUSSION (U)

(U) The results of the meta-analysis are presented here, where possible, in quantitative analytic terms, and various interpretations are discussed in detail. In addition, items that cannot be analyzed are discussed from a qualitative perspective.

(U) The analysis proceeds in a top-down fashion in accordance with the hierarchy shown in Figure 1.

A. (U) Overall Results

(U) The overall analysis was conducted from three different perspectives:

(1) All of the data, regardless of the purported skill of the subjects,

(2) A subset of the data contributed by an experienced group of viewers, *G1* (i.e., long-term, generally accepted expert viewers—002, 009, 131, 372, 414, and 504)

(3) All of the data except for the group *G1* (i.e., All-G1).

Table 2 shows the number of trials *n*, total *z* score, *p* value, and effect size *d* for informational and putative causal processes and for the combination of the two.

Table 2

(U) STATISTICAL RESULTS FOR MAJOR CLASSES

Class	Perspective	n	z	p*	d
Psychoenergetics	All	25,449	9.37	3.69 (-21)	0.059
	G1	9,825	6.86	3.46 (-12)	0.069
	All-G1	15,624	6.53	3.46 (-11)	0.052
Informational	All	24,450	9.07	5.83 (-20)	0.058
	G1	9,702	6.69	1.14 (-11)	0.068
	All-G1	14,748	6.25	1.96 (-10)	0.052
Causal	All	999	2.42	6.39 (-03)	0.077
	G1	123	2.06	1.99 (-02)	0.171
	All-G1	876	1.89	2.95 (-02)	0.064

[redacted]

* (U) Powers-of-ten are shown in parentheses.

(U) The number of trials shown in Table 2 differs slightly from those shown in Figure 1. A few trials in each category were analyzed from a post-hoc point of view and therefore have not been included in the formal analysis.

[redacted] The heterogeneity of effect size within each group for all classes is very large (i.e., the chi-squares for within-groups were large). This is to be expected for such a global analysis and is frequently seen in meta-analyses of psychological data.[5] The sources of the within-group variation include the psychoenergetic skill level of the subjects and fundamental differences between psychoenergetic tasks.

[redacted] The data, regardless of subjects or process, show strongly significant evidence for psychoenergetic functioning ($p \leq 3.69 \times 10^{-21}$). Both the informational and putative causal processes show significant evidence of psychoenergetic functioning, as well.

[redacted] Since p values are strongly dependent upon the number of trials, the modern trend in meta-analysis is to consider the trial-independent measure of effect size. From this point of view, the magnitude of the psychoenergetic functioning appears roughly constant for all the data shown in Table 2, and, according to Cohen's criteria for the interpretation of effect size,* corresponds to small effects.[6] The method of calculating *overall* effect size, however, involves a weighted average (see Table 1) and thus may not provide an accurate picture of the size of the psychoenergetic functioning within a given category. To obtain more insight into the nature of the functioning, we must examine the data within each category.

B. (U) Results for Categories Within the Informational Process

[redacted] Table 3 shows the number of trials, total z score, p value, and effect size for categories within the informational process. The data show strongly significant evidence for psychoenergetic functioning for all categories regardless of subjects. The effect size, however, begins to demonstrate category differences.

[redacted] The forced-choice effect size ($d = 0.052$) is equivalent to the overall effect size shown in Table 2 ($d = 0.059$). Since the forced-choice category accounts for 77% of the total number of trials, the effect-size averaging technique biases the overall result. For example, the effect size ($d = 0.209$) for the RV-Lab category is significantly larger than for the Forced-Choice case ($X^2 = 22.70$, $v = 1$; $p \leq 6.63 \times 10^{-6}$). The RV-Lab effect sizes meet Cohen's criterion for a medium-sized behavioral effect.

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* (U) Values of 0.1, 0.3, and 0.5 correspond to small, medium, and large effects, respectively.

Table 3

(U) STATISTICAL RESULTS FOR INFORMATIONAL CATEGORIES

Category	Perspective	n	z	p*	d
Forced-Choice	All	19,675	7.42	6.12 (-14)	0.052
	G1	9,487	5.82	2.92 (-09)	0.060
	All-G1	10,188	4.69	1.39 (-06)	0.046
RV-Lab	All	966	6.49	4.33 (-11)	0.209
	G1	196	5.39	3.49 (-08)	0.385
	All-G1	770	4.55	2.71 (-06)	0.164
RV-[redacted]	All	9	3.98	3.45 (-05)	1.326
	G1	9	3.98	3.45 (-05)	1.326
	All-G1	—	—	—	—
RV-Search	All	3,790	2.61	4.53 (-03)	0.042
	G1	—	—	—	—
	All-G1	3,790	2.61	4.53 (-03)	0.042

[redacted] * (U) Powers-of-ten are shown in parentheses.

[redacted] For the RV-Lab category, the experienced group, *G1*, performs significantly better than the novice, larger group ($X^2 = 7.63$, $\nu = 1$; $p \leq 0.0057$).

[redacted] As in the overall analysis, the data analyzed in Table 3 show a large heterogeneity of effect size within each category. The heterogeneity of effect size, however, is significantly reduced for the experienced subjects in the RV-Lab category. This reduction may result from a more uniform skill level of the subjects in group *G1*; this is in general agreement with our qualitative assessment of their abilities.

[redacted] Only 8.5% of the remote viewing operational trials were analyzed as a formal experiment. The effect size for these exceeds Cohen's definition of a large effect. The [redacted] requirements of [redacted] remote viewing, however, are less dependent upon the quality of the viewing than they may be on other factors. Excellent remote viewing does not necessarily imply good [redacted] information.

[redacted]

[redacted] In the RV-Search category, 91.3% of the data were collected under laboratory conditions by novice subjects. [redacted] The small effect size (d = 0.042) is commensurate with that found in other laboratories, and may reflect our lack of understanding about how to elicit this form of psychoenergetic functioning.

C. (U) Specific Results for Remote Viewing

(U) In this section we address the specific questions posed in the SOW. In any kind of an investigation where the general results fall under a statistical regime (i.e., z scores less than about 5), no hard definitions exist for definitive conclusions. The problem is confounded in behavioral science because many factors, beyond the particular independent variable in question, may significantly alter the outcome of an experiment. In trying to assess a large body of literature, as more constraints are placed on the outcomes, fewer within-group trials are available for analysis; thus, statistical conclusions become more difficult. This is also true for psychoenergetic research. Yet, it is possible to describe trends, to suggest ways of improving experiments based upon earlier results, and to obtain clear insights into factors that may affect psychoenergetic functioning.

[redacted] To ensure the most reliable interpretations of results in what follows below, group *G1* has been used for the quantitative discussion. As was shown in Section V.-B, this group possessed the most homogeneous set of data for the RV-Lab category and demonstrated a significant amount of remote viewing ability.

1. (U) Selection/Screening

[redacted] The selection of individuals who are able to accomplish remote viewing both in an operational setting and in the laboratory is of paramount importance. As is shown in Section V.-B., above, group *G1* provides the best results for both types of remote viewing. Throughout the history of the program at SRI, 6 individuals have been able to demonstrate consistent functioning over a long period of time. This does not mean that, after vigorous searching, only 6 have been found. Rather, given our [redacted] charter for most of the time period in question, we had little impetus to find other viewers. During fiscal years 1986-1988, it became clear that a greater number of talented viewers was needed for both applications and research.

[redacted] Prior to FY 1986, little was known about how to select good viewers. There was little systematic research either at SRI or within the field in general, and what was available was inconclusive or contradictory. The effort that began in FY 1986 encompassed a broad approach to the problem. We initiated three different types of quantitative approaches: self-report personality tests, neuropsychological testing, and behavioral testing (i.e., the Personality Assessment System—PAS). In addition, we used one heuristic approach, which simply asked individuals to try remote viewing.

[redacted] The heuristic approach has been quite successful. The efficiency (i.e., the number of talented viewers found divided by the total number screened) is approximately 1% in the general population (i.e., groups of self-selected volunteers). Based upon the results of a mass screening effort, two individuals have been asked to be regular contributors to the project.

[redacted] One other heuristic source of good viewers is individuals who have noticed a psychoenergetic ability in their lives. Many viewers in group *G1* came to the project in this manner, and a new viewer, claiming similar experiences, was identified in a recent screening effort. This viewer produced an effect size of 0.440 in 6 remote viewing trials, which contained many striking qualitative correspondences between targets and responses.

[redacted] Of the quantitative techniques, the neuropsychological approach was not successful at predicting performance. The PAS, however, predicted performance of 9 viewers to a significant degree.

[redacted] By far, the best way to select viewers as of this writing is to use individuals who either have abilities measured in other laboratories, or who have had strong personal experiences.

[redacted] One technique not mentioned above holds great promise for the future. Three individuals from group *G1* who participated in a neurophysiological study of correlates with remote viewing produced unusually large central nervous system responses to light stimuli directed at the eyes. More work is needed to determine if this simple test might be the most effective way to screen for individuals with excellent remote viewing ability.

[redacted]

2. (U) Targeting

[redacted] Targeting is a general term to describe the method by which a viewer is directed to the intended target. Common techniques that have been employed include the following:

(1) Beacon—an individual at the site of the intended target.

(2) Coordinates—the geographical or [redacted] coordinates of the intended target.

(3) Abstract—a word or phrase (e.g.,"target") or other abstract representation of the intended target.

(4) Self—none of the above, the viewer initiates the collection of data.

We examined these techniques in order to determine which provides the best access to a remote target.

[redacted] For these four targeting techniques, 183 trials were identified—the remainder, 13 trials, were listed as "unknown" targeting. The effect size for viewings initiated by these targeting techniques was 0.401, leading to a p value of 2.92×10^{-8}. Thus, there is significant evidence for remote viewing functioning. The between-groups chi-square is significant ($X^2 = 12.58$, $\nu = 3$; $p \leq 0.0058$), indicating that the effect sizes resulting from these targeting techniques are not drawn from the same population.

[redacted] It is difficult, however, to attribute the significant differences to targeting techniques alone. In none of the experiments could the targeting technique be used as a valid independent variable, because, in all cases, the viewers and experimenters were not blind to the targeting condition. Thus, it is possible, even likely, that the viewers' scientific or emotional bias toward one technique or another confounds the interpretation. Other factors, such as feedback time and type, or potential physics models of information transfer, also confound the interpretation.

[redacted] Given these caveats, beacon targeting appears to provide the best and most stable results ($n = 66$, $z = 5.305$, $p \leq 5.65 \times 10^{-8}$, $d = 0.653$).

3. (U) Evaluation and Analysis

(U) The evaluation and analysis of remote viewing data has undergone significant improvement during our 16 years of investigation. Beginning as a simple blind matching by judges, the techniques have been improved by the addition of concept analysis (the paraphrasing of a complex response), discrete descriptor analysis (defining targets and response as the yes/no answers to a predetermined set of descriptors), and fuzzy set descriptors (defining targets and responses as fuzzy sets).

[redacted]

[redacted] The fuzzy set technique has also been applied to [redacted] experiments and found to provide a useful estimate of remote viewing accuracy (the percent of the intended target that was described correctly) and viewer reliability (the percent of the viewer's response that was correct).

[redacted] For rapid evaluation of laboratory experiments, rank-order judging of targets within preselected (i.e., by fuzzy set techniques) target packets is recommended. For more accurate measures of remote viewing ability, however, the full fuzzy set analysis is suggested. Determining whether the fuzzy set technique can be applied [redacted] is a topic for further investigation.

4. (U) Training

[redacted] Six training efforts were conducted during the time period under consideration; three were qualitative and three were quantitative. There is no overall quantitative evidence that remote viewing can be taught to novice viewers. Of the qualitative efforts, two were conducted with [redacted] viewers, and one was conducted with SRI personnel. All three showed some qualitative evidence, however, that training improves remote viewing skill.

[redacted] Quantitative experiments were conducted with 18 novice viewers in three separate experiments comprising 481 trials. In the first group, the novices were self-selected on the basis of strong interest and previous personal experiences. None had participated in prior laboratory experiments. The six viewers in this group produced overall significant evidence for remote viewing (n = 169, z = 1.719, $p \leq 0.043$, d = 0.132). None of the viewers, however, individually or collectively demonstrated significant evidence that training helps a viewer to improve.

[redacted] The second group of 9 viewers was selected because the Personality Assessment System predicted that they would exhibit a wide range of remote viewing ability. Overall, their data did not reach statistical significance (n = 221, z = −0.971, $p \leq 0.834$, d = −0.065). While the best viewer produced an effect size of 0.170, none of the viewers' data reached statistical significance. None of these viewers individually or collectively demonstrated significant evidence that training helps a viewer to improve.

[redacted] In the third group of 3 novice viewers, one demonstrated significant evidence for improvement (n = 26, z = 3.01, $p \leq 0.0013$, d = 0.590).

[redacted] While significant evidence for remote viewing has been observed, whether training can improve remote viewing skill has yet to be substantiated quantitatively. It is possible that knowledge has not yet advanced to the point where we know how to train. Since the data from viewers in group *G1* have remained stable over time, we conclude that simple practice does not appear to improve performance.

[redacted] SRI recommends that investigations into training be continued. In the meantime, good viewers are more easily found than trained.

5. (U) Role of Feedback

(U) Feedback is defined as providing the viewer with information about the intended target after a remote viewing experiment. Very few experiments were devised to test the role of feedback in determining remote viewing quality. In the early phases of the project, the primary objective was to provide as good a result as possible, and since feedback appeared not to hinder remote viewing, most of the early sessions always included it in one form or another.

[redacted] The strongest evidence about the role of feedback is provided by the FY 1987 tachistoscope experiment. In that study, subliminal or minimal visual feedback was provided to the viewers. Two of the four viewers produced independent evidence for remote viewing ability ($n = 40$; $z = 2.30$, $p \leq 0.012$, $d = 0.363$, and $z = 4.43$, $p \leq 4.78 \times 10^{-6}$, $d = 0.700$, respectively). Neither of these viewers showed any dependency upon the intensity of the visual feedback, including zero intensity (i.e., no feedback at all).

[redacted] The question of the role of feedback was examined for group *G1*. We examined feedback time (i.e., the time duration after a session before feedback was provided), and feedback type (e.g., site, false site, verbal, visual). We found that there were substantial and significant differences among the various feedback times and among the various feedback types.

[redacted] To interpret these differences with regard to feedback is difficult. For example, the significant difference between a 1-hour delay compared to a 5-minute delay may result from the fact that most of the 5-minute delay feedback intervals occurred in experiments in which photographs were used as targets. Since the longer delay occurred in experiments that used beacons and natural sites as targets, one interpretation is that the observed differences are attributable to target type rather than feedback interval.

[redacted] A similar problem arises in the feedback type category. One clear result, however, does emerge. The effect sizes for feedback of natural sites ($d = 0.734$) is significantly larger than for feedback of the incorrect natural site ($d = -0.137$. $X^2 = 4.55$, $v = 1$; $p \leq 0.042$). Giving false feedback appears to inhibit remote viewing.

[redacted] A recent study indicates that feedback in remote viewing experiments is not essential.[7] This result is in qualitative agreement with the findings from our tachistoscope experiment. In forced-choice experiments, however, Honorton found that the role of feedback in the precognition experiments *was* critical.[8]

[redacted] While the quantitative results are mixed, viewers indicate that feedback is psychologically important. We conclude, therefore, that feedback should be provided whenever possible.

6. (U) Effect of Distance

[redacted] We examined the effect of distance on the quality of remote viewing. Distances were divided into four ranges: < 1 km, < 50 km, < 5000 km, and > 5000 km. For the group *G1*, there was no effect of distance on the quality of remote viewing ($X^2 = 3.56$, $\nu = 2$; $p \leq 0.167$). It is possible to be definitive about this particular result since all confounding variables tend to increase the chi-square rather than decrease it.

7. (U) Effect of Size of Target

[redacted] Only one experiment has been conducted that directly addresses this issue. Photographs were reduced to a spot size of approximately 1 mm in diameter. One viewer from group *G1* produced significant results ($n = 6$, $z = 2.10$, $p \leq 0.018$, $d = 0.857$). We are able to conclude that targets 1 mm in diameter do not inhibit remote viewing quality. No data are available on targets of varying sizes.

8. (U) Physiological Correlates to Remote Viewing

(U) In the field in general, the search for physiological correlates has not been successful. Early results indicated that an individual should be moderately relaxed and as free from physiological stress as possible (e.g., headaches, bathroom demands). These results are not surprising in that it is likely that such a "physiological" state would be optimal for any human activity.

[redacted] SRI has examined neurophysiological correlates to remote viewing in two separate experiments. Specifically, the central nervous system appears to respond to a remote light flash, and thus provides a correlate to remote viewing. For the two experiments, a total of four viewers (all from group *G1*) produced independent significant changes in α-production in correlation with remote light stimuli.[9,10]

[redacted] SRI recommends that the effort to isolate particular parts of the central nervous system that respond to remote stimuli be continued. The potential for screening and training are significant.

9. (U) Psychological Correlates to Remote Viewing

[redacted] Psychological correlates to remote viewing have provided weak, but significant, evidence for correlations with some forms of psychological variables. In the early work with the Personality Assessment System, SRI found that many of the group *G1* viewers clustered near each other in PAS space. In later work, the PAS predicted viewer performance to a significant degree. SRI's work with self-report personality tests has not been successful; however, Honorton reports small, but significant correlations with the thinking/feeling dimension in the Myers-Briggs Type Inventory.[11] In general, psychological correlates have been weak and/or unreliable.

10. (U) Shielding and ELF

[redacted] The main purpose of searching for shielding against psychoenergetic functioning is to provide for a secure environment. I. M. Kogan proposed a model of psychoenergetic information transfer based on extremely low-frequency (ELF) electromagnetic radiation.[12] In that model, Kogan proposed that the brain is, in effect, a 10-Hz oscillator and the body is a crude antenna. Radiation at that frequency would exhibit many of the properties of psychoenergetic functioning known at that time.

[redacted] Too few data were collected under known shielding conditions to make definitive statements with regard to shielding. Two trials were collected in a 30-dB shielding at 10 Hz. These trials showed significant evidence of remote viewing ($n = 2$, $z = 1.92$, $p \leq 0.027$, $d = 1.358$). In another experiment, when the target material was contained in a SCIF, significant evidence for remote viewing was observed ($n = 6$, $z = 1.91$, $p \leq 0.028$, $d = 0.780$). The trend, however, is clear: electromagnetic shielding does not inhibit psychoenergetic acquisition of target material.

11. (U) Audio Analysis

[redacted] In a single study involving 6 trials with a single viewer from group *G1*, a significant correlation of remote viewing quality with the audio/linguistic character of the response was found ($n = 6$, $r = 0.995$, $p \leq 0.050$, $d = 0.800$). One purpose for determining within-session correlations with remote viewing quality is to provide for an independent and a priori measure of quality.

(U) SRI recommends that this type of investigation be continued to determine the degree to which the result can be generalized across viewers.

12. (U) Search and Tracking

[redacted] As was seen in Section V.–B., above, significant evidence for search was found overall (n = 3,790, z = 2.61, $p \leq 0.0045$, d = 0.042). Most of these trials were collected in experiments using computer techniques. In a few experiments, however, the target material was physical objects in a laboratory setting. The effect sizes from these experiments do not differ significantly from the overall result.

[redacted] Search has always been a challenge. On a few occasions, operational use of search has proved extremely useful data, but on the average, both the laboratory experiments and operational use have been disappointing. SRI recommends continued effort in search to determine those factors that can enhance a potentially very useful phenomenon.

13. (U) Precognitive Remote Viewing

[redacted] The first SRI precognition experiment provided significant evidence of the phenomenon (n = 4, z = 1.73, $p \leq 0.042$, d = 0.864).[13] From FY 1975 to FY 1987, precognition was not studied in any systematic manner. During FY 1987, one experiment was conducted using natural sites as targets and one of the group *G1* viewers. The result was not significant (n = 10, z = −0.476, $p \leq 0.683$, d = −0.150). A second experiment using novice viewers was conducted in the same year. This also did not reach a significant level (n = 55, z = 0.070, $p \leq 0.472$, d = 0.064). Therefore, the results of SRI's investigations are mixed. However, in a recent meta-analysis of the precognition forced-choice literature conducted by one of SRI's subcontractors, 50 years of experimentation involving 50,000 subjects showed highly significant evidence for the phenomenon ($n \approx 10^6$, z = 24.23 , $p \leq 4 \times 10^{-52}$, d = 0.041). This result is consistent with the forced-choice real-time studies conducted at SRI (d = 0.052).

[redacted] Taken as a whole, there appears to be compelling evidence for precognition. When precognition is used as the underlying assumption for a heuristic model of psychoenergetic functioning, 15 years of random number generator data fall on the predicted theoretical curve.[14]

14. (U) Analytics (Forced-Choice)

(U) Forced-choice remote viewing (defined in Section IV.–A.) has traditionally provided weak but consistent evidence for a psychoenergetic phenomenon. In the experiments conducted during the Rhine era, over one million trials were conducted with ESP cards (i.e., a one-in-five target system).[15] Strong significances were observed, but effect sizes were of the order of 0.02.

[redacted] Table 3 shows the results for 19,675 trials collected at SRI since 19[illegible]. The effect size is consistent with the early results of Rhine ($d = 0.052$). In fiscal years 198[illegible]-1988, one of the viewers from group *G1* was able to increase the effect size by a factor of 10 ([illegible] - 50, $p \leq 0.00015$, $d = 0.51$), meeting Cohen's definition of a strong effect. While there was significant improvement with this viewer during the three years, the number of formal trials was small, and thus interpretation is difficult.

[redacted] SRI recommends that a forced-choice investigation be continued to determine if such strong effects can be observed in other viewers.

15. (U) Conducting an RV Experiment

[redacted] No formal experimentation has been conducted to examine session parameters that enhance remote viewing. SRI does not use any formal induction techniques and the sessions are conducted in a businesslike atmosphere with the viewer and monitor sitting upright and opposite each other across a table. Since the overall effect size ($d = 0.385$) observed for group *G1* meets Cohen's definition of a medium-sized effect, these session conditions do not appear to hinder the phenomenon.

16. (U) Countermeasures

[redacted] The first step in investigating countermeasures for remote viewing is to examine whether it is possible to shield against psychoenergetic intrusion. As was discussed in Section V.-C.-10, E&M shielding does not appear to be effective.

[redacted] To provide an effective shield or a useful physical countermeasure, it must be determined whether psychoenergetic phenomena interact with the physical world. In the remote action studies conducted at SRI, most of the studies have not demonstrated any evidence of psychoenergetic interaction with the physical world.

[redacted] Two exceptions are worthy of discussion. In a study conducted in FY [illegible], involving random number generators, the significant results were consistent with the historical database of such experiments. Later, it was shown that these results are not due to a physical interaction, but rather due to precognition.[14]

[redacted] During FY 1975, a striking anomaly was observed when one of the viewers from group *G1* attempted to influence a shielded magnetometer. The device was perturbed in a significant manner, but no other experiments were conducted that showed similar non-statistical results.

[redacted] In an experiment designed to replicate claims made in the People's Republic of China, SRI determined the degree to which pulses from a photomultiplier tube correlated with the quality of remote viewing. While strong evidence for remote viewing was seen, no significant correlations with the tube output were observed.

[redacted] At this time, there is no evidence that psychoenergetic phenomena can be shielded against nor effectively countermeasured.

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(U) Thus, the groups of interest were ranked as ERUa > ERA8 = ERU8 > IRA5 when predicting overall performance and were ranked as the reverse of this when predicting the significance of the learning within the experiment.

3. (U) Results of Predictions: Correlations Between RV Performance and PAS Profiling

(U) Table 5 shows the PAS predictions for overall RV performance as measured against actual performance--i.e., each trainee's performance as measured by an effect size estimate (Pearson's r)[3] derived from the figure of merit analysis[4] p-values. An effect size estimate is used to normalize for number of sessions.

Table 5

[redacted] PAS PREDICTION VS. ACTUAL VIEWER PERFORMANCE

PAS Prediction				Actual Viewer Performance		
Viewer ID	Profile	Prediction	Comments	Viewer ID	Effect Size (r)	Number of Sessions (n)
739	ERUa	best	very close in ranking	739 *	0.170	10
210	ERA8	best		137	0.110	23
928	ERU8	best		928 *	0.082	28
512	IRA5	best		512 *	-0.131	25
891	IRA5	best		450	-0.139	37
450	IRU4	middle		307	-0.159	25
137	ERU5	middle	might do well in IDS, but not in RV	210	-0.220	23
307	EFU5	worst		891	-0.267	27
176	EFU6	worst	clearly the bottom	176 *	-0.279	23

* PAS prediction coincides with the viewer's actual rank.

[redacted]

(U) While the rank order correlation contrasting the top five and bottom four performers does not achieve statistical significance, it is encouraging that the PAS correctly identified two out of the three best performers. The failure to identify Viewer 137 is easily attributed to lack of prior experience with ERU5 viewers. Thus, the results tend more to confirm than to disconfirm the FY 1984 PAS study.

(U) Table 6 shows the PAS predictions for evidence of RV learning as measured against actual evidence for learning--i.e., each trainee's learning-slope effect size as derived from the figure of merit slope p-values.

Table 6

[redacted]PAS PREDICTION VS. EVIDENCE FOR VIEWER LEARING

PAS Prediction			Actual Viewer Performance		
Viewer ID	Profile	Prediction	Viewer ID	Effect Size (r)	Number of Sessions (n)
891	IRA5	Most improvement	739	0.223	10
512	IRA5		928	0.213	28
928	ERU8		137	0.155	23
210	ERA8		210 *	0.082	23
739	ERUa		450	0.046	37
450	IRU4		891	-0.041	27
137	ERU5		176	-0.085	23
307	EFU5		307	-0.392	25
176	EFU6	Least improvement	512	-0.524	25

* PAS prediction coincides with the viewer's actual rank.

[redacted]

(U) The PAS predictions concerning viewer learning are largely unsuccessful. When the PAS predictions were forwarded to the SRI COTR, however, they were caveated

IV CONCLUSIONS (U)

(U) Several important factors must be noted when assessing the overall efficacy of the PAS in this study. It is important to observe, for example, that the novice RV training results are *preliminary:* final training results are not officially scheduled for delivery until the end of the first quarter of FY 1987. Although continuation of training with the original nine participants at this juncture would destroy the double-blind aspect of the PAS study, a workable solution to this problem has been identified--namely, to continue training with a new group comprised of the most promising few candidates out of the original group of nine, augmented with new candidates to whom the monitors and evaluators are blind with respect to PAS pattern.

[redacted]The explanation for the observed lack of significance in the preliminary novice RV training results is presently unknown. One hypothesis would suggest that the training procedures are simply not proving effective. This appears unlikely, however, given that significance was achieved with novice trainees using the same procedures in FY 1984. A second possibility is that training needs to be of a longer duration.* This hypothesis can be tested by observing whether significance is achieved with the selected viewers from this study who continue training.

(U) The PAS results for this study are encouraging and provide a conceptual replication of the earlier FY 1984 PAS work. In the earlier study, the PAS was used successfully to predict the top performer out of each of three different training groups. In FY 1986, the PAS has been used effectively to predict two out of the top three performers in a single training group. As an empirically driven system, the PAS Reference Groups experience continual refinement as the PAS data base increases. It is anticipated, therefore, that the predictive power of the PAS will increase accordingly.

*(U) This is more consistent with the apparent indication that aspects of the training results are correlated with something else, i.e., the PAS.