IV. (U) BASIC RESEARCH:

1. Neurophysiological Correlates:

   - Determine potential magnetoencephalograph (MEG)
      visual response correlates:

      - Between talented people and a variety of
         external near-field stimuli conditions.

      - Between talented people and a variety of
         external far-field stimuli conditions.

   - Determine potential MEG non-visual correlates:

      - Between talented people and a variety of
         external near and far field stimuli
         conditions.

   - Initiate research to identify and locate brain
      areas where parapsychological data may
      originate:

      - Extend research to show how data is
         eventually processed into conscious
         awareness.

2. Psychophysical Correlates:

   - Determine potential for psychophysical
      parameters:

      - Galvonic skin response (GSR).

      - Other central nervous system (CNS)
         parameters.

      - Role of distance and other variables.

      - Potential for counter-influence.

3. Physical/Psychophysical Model Exploration:

   - Role of target "state" (degree of energy, chaos,
      size, distance, shielding, target format, etc.).

   - Role of psychological factors (goal, empathy,
      target type, etc.).

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- Role of other possible influencing parameters
(i.e., no "sender" present, presence of
"sender," and degree of linkage).

- Other candidate factors.

4. Altered State Investigations:

- Determine if various altered states can improve
data reliability (eg., lucid states, deep
relaxation conditions).

- Determine if various altered states correlate
with cognitive style or with target type.

5. Potential Influences of External Fields:

- Determine if geomagnetic influence can affect
results.

- Develop new experiments with adjustable external
field conditions.

6. Develop a Comprehensive Target Pool:

- To help sort out possible target characteristic
influences.

- To use as a possible screening device.

- For assessing application issues.

7. Initiate Evaluation of "Energetics":

- Identify possible "follow-on" with available
select talent (when located).

- Visit people/areas to observe demonstration.

- Identify equipment monitoring needs.

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V. (U) APPLIED RESEARCH:

1. Neurophysiological Correlates:

   - Develop magnetoencephalograph (MEG) screening/selection techniques (visual, non-visual).

     - Measure sufficient known talent.

     - Measure other select populations (e.g., creative, yogi, martial arts).

     - Measure general population.

   - Examine feasibility for refinement to permit talent sorting according to task type or need (e.g., visual vs. verbal style).

   - Perform follow-on talent validation experiment with new candidates to confirm MEG findings.

   - Use as a check for training/development status or progress.

     - Evaluate individual strategies.

     - Evaluate specified training programs.

     - Examine feasibility of transmitting information (i.e., via redundancy coding methods) for near-field and far-field conditions according to cognitive style.

2. Physiological Correlates:

   - Determine potential of information transmission via GSR or other CNS parameters.

3. Application-Oriented Issues:

   - Investigate neurophysiological/psychophysical measures useful for predicting data quality.

   - Determine if self reports, focused intent, or other factors can be found that help in predicting data quality.

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-   General screening investigations:

    -   Develop new target pools that are comprehensive and can identify various talent and talent preferences.

    -   Conduct in-depth study of people previously involved in this research to search for patterns in background, personality, or other factors.

    -   Reassess/investigate psychological or psychophysical measures that show promise for screening:

        -   Defense Mechanism Test (DMT).

        -   Stanford Hypnotic Suggestibility Scale.

        -   Subliminal Perception Responses.

-   Application improvements (Intelligence Related):

    -   Examine methods for improving information quality or reliability:

        -   New internal strategies.

        -   Task/response timing.

        -   Specific goal setting.

        -   Spatial/temporal issues on strategies for search improvement.

        -   Determine if results from conventional altered state research have applicability to application quality/reliability improvement.

        -   Conduct various experiments, review data bases, and apply various evaluation methods to determine application potential and to identify methods of improving data quality as appropriate.

Explore other applications:

-   Communications potential:

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- Use of redundancy coding (with conscious response).

- Incorporate with other basic/applied projects.

- Simulate "real" problems:

    - Hostages (lost people).

    - Underground or submarine environment.

- Predictive:

    - Identify approaches for follow-on.

    - Involve other labs, other talent.

    - Examine influences of event complexity, time-of-occurrences.

    - Tie to psychological/cognitive style.

- Code breaking:

    - Perform preliminary investigations for follow-on.

- Training Developments:

    - Develop improved ways t measure or evaluate the role of training, the training method, practice, goal setting, session timing, or other factors.

    - Review a wide variety of "training development" approaches to identify candidate avenues for new basic/applied research (e.g., potential use of subliminal perception training).

    - Compile appropriate evaluation procedures and statistics:

        - Use of control groups.

        - Improved artificial intelligence methods.

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- Bias detection methods.

- Other

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VI. (U) OTHER ACTIVITIES:

SG1B

2. Develop "Multi-Disciplined: Research Plan:

   – To incorporate findings from FY91 work.

   – Develop new interlab/interdisciplinary links with:

     – Neuro-cognitive sciences.

     – Optical data processing/neuro network technology.

     – Altered state research:

       – Hypnogogic/Hypnopompic

       – Other

     – Advanced physical theories:

       – Recent viewpoints on gravitation.

       – Postulates involving scalar waves.

       – Other

3. Activity Support:

   – Research Management.

   – Scientific Oversight Committee (SOC).

   – Human Use Review.

   – Computer Support.

   – Misc. (Admin., TDY).

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VII. (U) <u>SCHEDULE CONSIDERATIONS:</u>

(U) The following pages contain table summaries of key activities identified in the previous sections. Estimated level-of-effort, as well as key milestones and other data, are included on the tables.

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EXTERNAL SUPPORT - FY91

BASIC RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE
1. Neurophysiological Correlates				
- Visual Response MEG				
- Non-Visual MEG				
- For Select and Control Groups				
- For Near and Far Field				
2. Physiological Correlates				
- Candidate CNS				
- Near and Far Field				

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EXTERNAL SUPPORT - FY91

BASIC RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE

3. Energetics Phenomenon

   - Initiate Review

   - Locate People

   - Develop In-Depth Plan

   - Identify Equipment

4. Physical/Psychophysical

   - Physical, Cognitive Constructs

      - Target State, Environment

      - Possible Variables

   - Comprehensive Target Pool

   - External Field Effects

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EXTERNAL SUPPORT - FY91

BASIC RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE

5. Altered State Investigations

    - Lucid States; Other Noise
         Reduction Conditions

    - Correlation to Cognitive
         Style

6. Review of Relevant Conventional
         Research

    - Neurosciences/Biophysical

    - Advanced Physics

    - Psychological Issues

EXTERNAL SUPPORT - FY91

APPLIED RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE

1. Neurophysiological Correlates

    -   Visual MEG

    -   Non-visual MEG

    -   Select, Control Groups

    -   Information Transmission

2. Physiological Correlates

    -   CNS Parameters

    -   Screening/Selection

    -   Information Transmission

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EXTERNAL SUPPORT - FY91

APPLIED RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE
3. Application Enhancement				
- Factors for Predicting/ Improving Data Quality				
- Pattern Analysis				
- Strategies, Training				
- Other				
- Use of Multiple Sources				
- Task/Person Matching				
- Calibration Target Pools				
- Talent Quantification				
- Insight from Talented People				
- Use of Selection Aids				
- Psychophysical Measures				
- Subliminal, Other Scales				
- MEG Findings				

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APPLIED RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE
4. Explore Various Applications				
— Intelligence Needs				
— Communication Potential				
— Subconscious (MEG)				
— Conscious (RV, Other)				
— Coding Techniques				
— Predictive				
— Preliminary Investigations				
— Develop Follow-On Plan (FY92+)				
— Multi-Labs				
— Timing/Complexity				
— Cognitive Style				
— Code Breaking				
— Preliminary Investigations				

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EXTERNAL SUPPORT - FY91

APPLIED RESEARCH

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE

5. Training/Development Investigations

  - Review Worldwide Literature

  - Role of Training, Practice,
     Goal Setting, Other

6. Evaluation Procedures/Statistics
     Manual

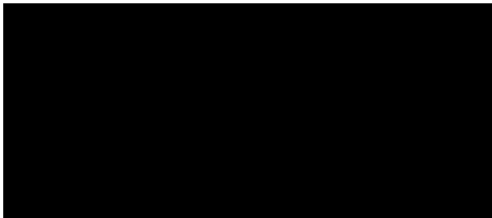 - Research Projects

  - Various Operational Activities

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EXTERNAL SUPPORT - FY91

OTHER ACTIVITIES

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE

SG1B

2. Develop Comprehensive Multi-
   Disciplinary Plan (For FY92+)

   - Integrated, Multi-Lab

   - Neurosciences/Cognitive
     Sciences

   - Advanced Research (Physics,
     Biophysics)

   - Other

EXTERNAL SUPPORT - FY91

OTHER ACTIVITIES

AREA	EST. LEVEL OF EFFORT	EST. START	EST. COMP.	INTERFACE

3. Activity Support

  — Research Management

  — Scientific Oversight
     Committee (SOC)

  — Human Use Review

  — Computer Support

  — Travel

  — Administration

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