ORD-2953-74

8 July 1974

MEMORANDUM FOR THE RECORD

SUBJECT: Trip Report to Stanford Research Institute

1. On 29 May the undersigned traveled to Develco, Inc. The purpose of this trip was to check-out the second order magnetic gradiometer at Develco, transport the instrument to Stanford Research Institute, and participate in examining subjects who allegedly have extra sensory perception or powers. Experiments were to be conducted to see if low level magnetic fields are generated by these individuals when they are performing in an extra sensory mode.

2. The afternoon of the 29th was spent checking-out the gradiometer inside Develco's plant. The read-out was noted to be noisy but this was attributed to the imbalance of the pickup coils. During the evening the instrument was moved outside to a deserted parking lot and an attempt to balance the pickup coils was made. It then became evident that the sensor was being saturated by RF interference which the building had been a partial shield against while operating inside.

3. During 30 May the instruments internal RF shield was checked and its integrity was found to be intact. The RF interference was apparently being coupled in somehow through the RF stripline which would, therefore, have to be replaced. In order that the experiments at SRI might be conducted expeditiously, it was determined that the entire gradiometer could be wrapped with an external RF shield for the duration of the SRI experiment and then returned to Develco to fix the RF susceptibility problem.

4. That evening with external RF shield in place an attempt was again made to balance the instrument. Although saturation was not experienced large sporadic flux jumps were encountered (flux jumps occur when a feedback loop in the electronics loses lock during large signal pulses). This made balancing extremely difficult. The battle continued early on 31 May. After a day long effort, a balance of several

parts in 10^4 was achieved. This between frequent periods of flux jumping. Although the balance was below the specified one part in 10^5, it was felt that it might be sufficient for the planned experiments. Also it was suspected that the flux jumping was caused by a sporadic noise source in the vicinity of the Develco plant (Moffett Field and Ames Research Center or next door). It was concluded that the gradiometer should be operated at SRI to check its behavior.

5. The gradiometer was transported to SRI early on 1 June. A short period of operations at SRI indicated the same pattern of flux jumping as experienced at Develco. The suspected source of this problem then shifted to the gradiometer and it was transported back to Develco.

6. The source of the flux jumping was discovered after an afternoon of search to be coupling between the newly applied external RF shield and the 60 hZ nulling coil attached to the outside of the gradiometer dewar. When the coil was removed the problem was solved. The nulling coil was thereafter placed near, but not in contact with the gradiometer when in use. During the evening of 1 June the balance was increased to its specified one part in 10^5 and the gradiometer appeared to be in good working condition.

7. Early 2 June the gradiometer was transported back to SRI. A mornings operation in various locations of the temporary building selected for the experiments indicated that the 60 cycle noise level was too high for operation at that site. The search for a suitable site then moved to the main building and various locations were investigated throughout the afternoon. A suitable room was located and baseline data were taken during the evening hours. More baseline data were obtained during the morning of 3 June and the liquid helium in the dewar was replenished.

8. The experiments started the afternoon of 3 June. The physical set-up of the first experiment was as follows: the subject, with all metal objects and magnets removed from his person, sat with his head approximately four inches from the gradiometer's pick-up coils. The torsion pendulum which the subject was to effect telekinetically was located 50 feet and several rooms away. The motion of the pendulum and the output of the gradiometer were recorded on a two-channel strip chart recorder. The recorder and gradiometer electronics were placed in the next room out of the subjects sight.

9. During the next two and one-half days, six one-hour experiments were conducted. These one-hour work periods were broken down into 12 five-minute segments. During the first five-minutes the subject was

told to increase or decrease the amplitude of the natural oscillation of the pendulum. The decision to increase or decrease was made from a table of random numbers and given to the subject by the principal investigator Hal Puthoff. During the next five minutes the subject was told to rest. This procedure was repeated for one hour. Before and after the one-hour work period, 15 minutes of baseline data were taken. Also one-hour periods of baseline data were taken as a control with no subject present.

10. No definitive results were obtained during these work periods. On a few occasions, signals detected by the gradiometer appeared to coincide with periods when the subject was told to effect the pendulum. However, similar signals are present in the baseline data and also occurred during the five minute rest periods. This unfortunate ambiguity is the results of working in the main building where activity is occurring above and below the laboratory area. This activity could not be controlled and caused spurious signals in the data. The only possible method of removing this ambiguity in this particular experiment was for the subject to reliably produce a signal when he was told to effect the pendulum thus providing temporal filtering. This did not happen.

11. On 6 June the subject was asked to explore the gradiometer with his extra sense and to cause a signal if possible. As a feedback the subject was informed when a signal appeared on the strip chart. After the subject indicated that he understood the workings of the gradiometer and could generate signals at will, the experiment began. The subject sat approximately six feet from and line-of-sight to the gradiometer. He was asked to create a signal on command for one minute, rest one minute, then create a signal for one minute and so forth. During this experiment and the previous one, the subject was asked to make gross motions in the vicinity of the gradiometer prior to each work session. In all cases this motion was not detected by the gradiometer. This method was used to insure that no hidden metal or magnets remained on the subject which could be used to create a false signal.

12. The first four commands to generate a signal resulted in a signal simultaneous with the command. No further positive results were obtained during several hours of trials spaced throughout the day. The subject was then asked to sketch his conception of the internal region of the gradiometer. The results were disappointing and contained nothing which could not have been deduced from the outward appearance of the instrument.

13. On 7 June Puthoff and Targ were given final instructions in the use of the gradiometer and a liquid helium transfer was made for instructional purposes. The subject again attempted to cause a signal response from the gradiometer on command. The results were negative.

14. The return trip to Washington, D. C. was made the afternoon of 7 June. The gradiometer was left at SRI for further experimentation with other subjects. Develco, Inc. will make repairs before the gradiometer is transported back to the [redacted] SG1D

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