

SECRET
CENTER LANE-4



Final Report

July 1984

SPECIAL ORIENTATION TECHNIQUES: S-IV (U)

By: HAROLD E. PUTHOFF

Prepared for:

DEPARTMENT OF THE ARMY
USAINSCOM
FORT GEORGE G. MEADE, MARYLAND 20755
Attention: LT. COL. BRIAN BUZBY

CONTRACT DAKF27-83-C-0018

WARNING NOTICE
CENTER LANE SPECIAL ACCESS PROGRAM
RESTRICT DISSEMINATION TO THOSE WITH VERIFIED ACCESS.
CATEGORY 4

333 Ravenswood Avenue
Menlo Park, California 94025 U.S.A.
(415) 326-6200
Cable: SRI INTL MPK
TWX: 910-373-2046



SECRET

NOT RELEASABLE TO
FOREIGN NATIONALS

Final Report
Covering the Period 1 February 1983 to 30 April 1984

July 1984

SPECIAL ORIENTATION TECHNIQUES: S-IV (U)

By: HAROLD E. PUTHOFF

Prepared for:

DEPARTMENT OF THE ARMY
USAINSCOM
FORT GEORGE G. MEADE, MARYLAND 20755
Attention: LT. COL. BRIAN BUZBY

CONTRACT DAKF27-83-C-0018

SRI Project 5590

WARNING NOTICE
CENTER LANE SPECIAL ACCESS PROGRAM
RESTRICT DISSEMINATION TO THOSE WITH VERIFIED ACCESS.
CATEGORY 4

Approved by:

ROBERT S. LEONARD, *Director*
Radio Physics Laboratory
DAVID D. ELLIOTT, *Vice President*
Research and Analysis Division

Copy No. 1

This document consists of 30 pages.

941/CL-0020

CLASSIFIED BY: CENTER LANE
Security Classification Guide
Dated 1 March 1983
DECLASSIFY ON: OADR

**NOT RELEASABLE TO
FOREIGN NATIONALS**

SECRET
CENTER LANE-4



UNCLASSIFIED

CONTENTS (U)

LIST OF ILLUSTRATIONS	v
LIST OF TABLES.	v
I OBJECTIVE.	1
II INTRODUCTION	3
A. General	3
B. Training by Stages--An Overview	4
1. Rationale.	4
2. Stage I.	5
3. Stage II	6
4. Stage III.	6
5. Stage IV	7
III STAGE IV TECHNOLOGY.	11
A. Overview.	11
B. Trainee #059 Response to Stage IV Training.	12
IV EVALUATION AND RECOMMENDATIONS	17
A. Completion Indicators	17
B. Trainee Evaluation.	21
C. Recommendations for Follow-On Actions	21
Appendix--STAGE IV SITES.	23

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

UNCLASSIFIED

ILLUSTRATIONS (U)

1	Schematic Representation of Remote Viewer Response to CRV Situation.	5
2	Idealized Performance-Over-Time Curve.	7
3	Gateway Arch, St. Louis.	8
4	Iwo Jima Island.	9
5	Stanford Radiotelescope.	10
6	Training Performance (RVer #059)	13
7	St. Patrick's Cathedral, NYC (Trial 22).	18
8	FMC Chemical Plant, Newark, CA (Trial 24).	19
9	Stanford Linear Accelerator, Stanford, CA (Trial 26)	20

TABLES (U)

1	Stages in Remote Viewing	4
2	Data-Bit Distribution, S-IV Training Series, Trainee #059	14
3	Stage IV Completion Trials 22 through 26	17

UNCLASSIFIED

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

SECRET/CENTER LANE-3/NOFORN

I OBJECTIVE (U)

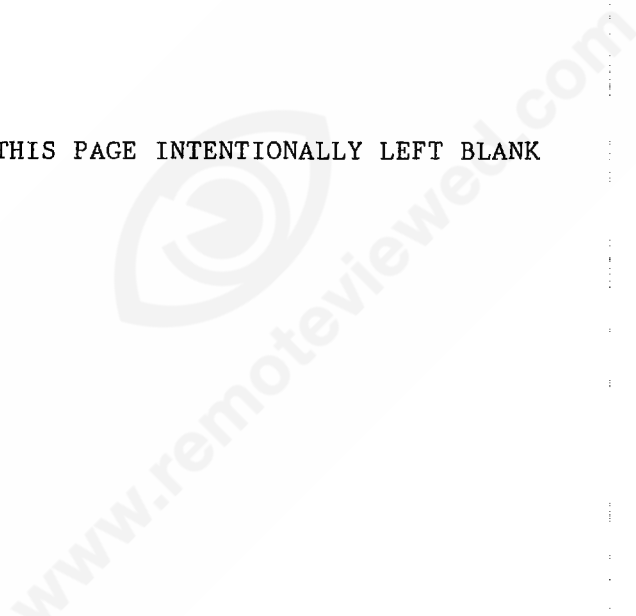
(S/CL-3/NOFORN) SRI International is tasked with developing remote viewing (RV)* enhancement techniques to meet DoD requirements. Of particular interest is the development of procedures that have potential military intelligence application, and that can be transmitted to others in a structured fashion (i.e., "training" procedures).

(S/CL-3/NOFORN) Under particular study in this effort is whether a Coordinate Remote Viewing (CRV) technology, a technique that utilizes coordinates to facilitate acquisition of a remote-viewing target, can be successfully transferred to INSCOM personnel..

* (U) RV is the acquisition and description, by mental means, of information blocked from ordinary perception by distance or shielding.

SECRET/CENTER LANE-3/NOFORN

THIS PAGE INTENTIONALLY LEFT BLANK



SECRET/CENTER LANE-4/NOFORN

II INTRODUCTION (U)

A. (U) General

(S/CL-4/NOFORN) At the beginning of FY 1981, SRI International made a decision to develop and codify a promising RV enhancement procedure that had emerged from earlier work--a multistage coordinate remote-viewing training procedure developed in conjunction with an SRI consultant. The procedure focuses on developing the reliability of remote viewing by controlling those factors that tend to introduce noise into the RV product. A broad overview of the procedure, which has been derived empirically on the basis of a decade of investigation into the RV process, is presented in Chapter III. The basic components of this procedure consist of

- Repeated target-address (coordinate) presentation, with quick-reaction response by the remote viewer (to minimize imaginative overlays).
- The use of a specially-designed, acoustic-tiled, featureless, homogeneously-colored viewing chamber (to minimize environmental overlays).
- The adoption of a strictly-prescribed, limited interviewer patter (to minimize interviewer overlay).

(U) At this stage of the development (Stage V is still in R&D; additional stages are projected), the RV training procedure is structured to proceed through a series of stages of proficiency, hypothesized to correspond to stages of increased contact with the target site. The stages are outlined in Table 1. In a given remote viewing session, an experienced remote viewer tends to recapitulate the stages in order.*

* (U) Use of Stage V in the sequence is optional, depending on the level of analytical detail required.

SECRET/CENTER LANE-4/NOFORN

Table 1

(U) STAGES IN REMOTE VIEWING

Stage	Example
I Major gestalt	Land surrounded by water, an island
II Sensory contact	Cold sensation, wind-swept feeling
III Dimension, motion, mobility	Rising up, panoramic view, island outline
IV General qualitative analytical aspects	Scientific research, live organisms
V Specific analytical aspects (by interrogating signal line)	Biological warfare (BW) preparation site
VI Three-dimensional contact, modeling	Layouts, details, further analytical contact
.	.
.	.
.	.

UNCLASSIFIED

B. (U) Training by Stages--An Overview1. (U) Rationale

(S/CL-4/NOFORN) The particular effort covered in this report concerns training of an INSCOM viewer to completion on Stage IV (S-IV). To place the S-IV training effort in perspective, we summarize briefly how it develops out of the earlier stages.

(U) The key to the earlier stages is the recognition that the major problem with naive attempts to remote view is that the attempt to visualize a remote site tends to stimulate memory and imagination--usually in visual-image forms. As the viewer becomes aware of the first few data bits, there appears to be a largely spontaneous and undisciplined rational effort to extrapolate and "fill in the blanks." This is presumably driven by a need to resolve the ambiguity associated with the fragmentary nature of the emerging perception. The result is a premature internal analysis and interpretation on the part of the remote viewer. (For example, an

SECRET/CENTER LANE-4/NOFORN

UNCLASSIFIED

(U)

impression of an island is immediately interpreted as Hawaii.) This we call analytical overlay (AOL).

(U) Our investigation of these overlay patterns leads to a model of RV functioning, shown schematically in Figure 1. With the application of a "stimulus" (e.g., the reading of a coordinate), there appears to be a momentary burst of "signal" that enters into awareness for a few seconds, and then fades away. The overlays appear to be triggered at this point to fill in the void. Success in handling this complex process requires that a remote viewer learn to "grab" incoming data bits while simultaneously attempting to control the overlays. Stage I and Stage II training is designed specifically to deal with this requirement.

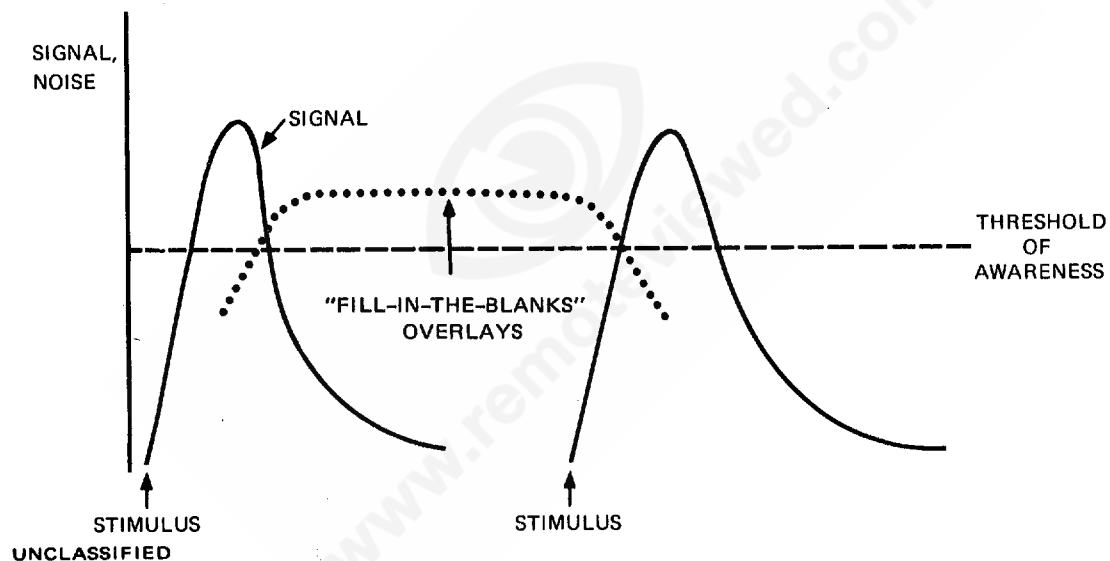


FIGURE 1 (U) SCHEMATIC REPRESENTATION OF REMOTE VIEWER RESPONSE TO CRV SITUATION

2. (U) Stage I

(U) In Stage I, the viewer is trained to provide a quick-reaction response to the reading of the site coordinates by the monitor. The response takes the form of an immediate, primitive "squiggle" on the paper (called an ideogram), which captures an overall motion/feeling of the gestalt of

UNCLASSIFIED

SECRET/CENTER LANE-3/NOFORN

(U)

the site (e.g., wavy/fluid for water). Note that this response is essentially kinesthetic, rather than visual.

3. (U) Stage II

(U) In Stage II, the viewer is trained to become sensitive to physical sensations associated with the site, i.e., sensations he might experience if he were physically located at the site (heat, cold, wind, sounds, smells, tactile sensations, and the like). Again, this response is essentially nonvisual in nature (although color sensations may arise as a legitimate Stage II response). Of course, in both training stages, visual images may emerge spontaneously. In that case they are not suppressed, but simply noted and labeled as AOLs.

(U) Provided Stages I and II have been brought under control by the viewer, Stage III training is initiated. The phrase "under control" means that the viewer has been observed to pass through a performance curve of the type shown in Figure 2, which typically applies to skills learning. Certain objective performance measures, such as number of session elements or number of coordinate iterations required to reach closure on site description, are tracked to determine progress along the performance curve.

4. (U) Stage III

(S/CL-3/NOFORN) Whereas in Stage I and II viewing, data appear to emerge (typically) as fragmented data bits, in Stage III, we observe the emergence of a broader concept of the site. With Stage I and II data forming a foundation, contact with the site appears sufficiently strengthened that the viewer begins to have an overall appreciation of the site as a whole (which we label "aesthetic impact"). Dimensional aspects such as size, distance, and motion begin to come into play, resulting in configurational outlines and sketches. For training practice, sites are chosen especially to require the Stage III aptitudes of dimensional perception, e.g., sketching of an outline-tracking nature. Examples generated by viewer #059, the viewer of this study, include the Gateway Arch in St. Louis, Iwo Jima Island, and the Stanford radiotelescope, shown in Figures 3 through 5.

SECRET/CENTER LANE-3/NOFORN

SECRET/CENTER LANE-3/NOFORN

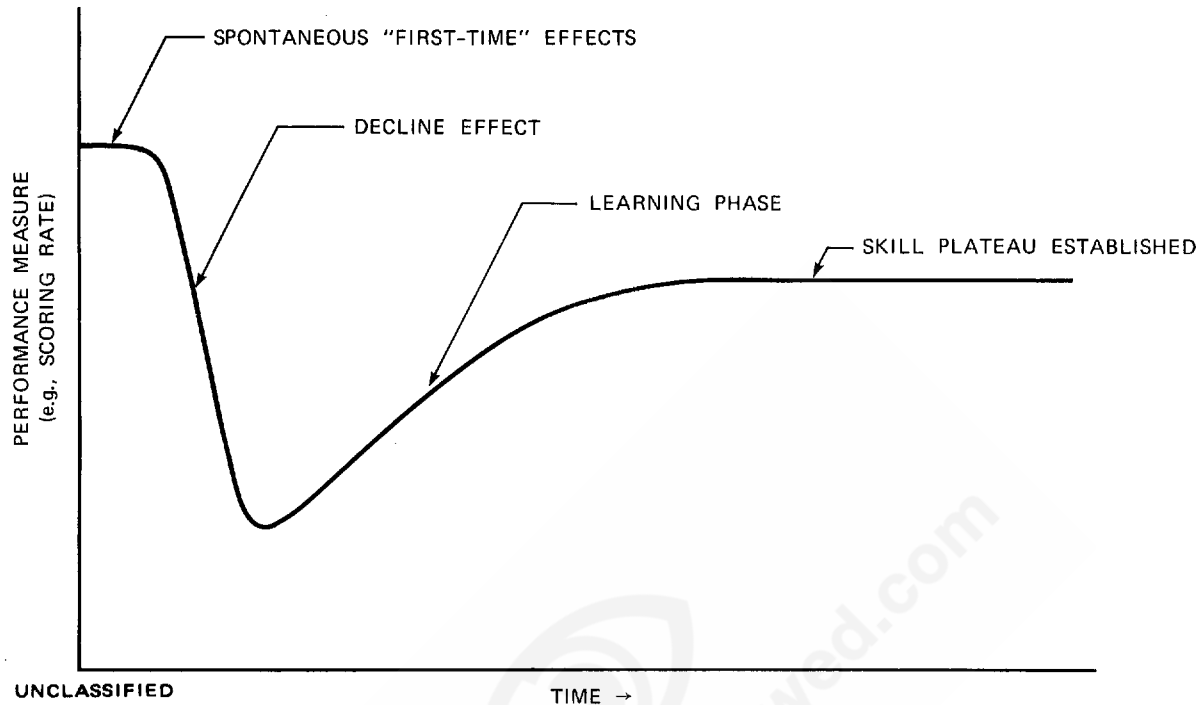


FIGURE 2 (U) IDEALIZED PERFORMANCE-OVER-TIME CURVE

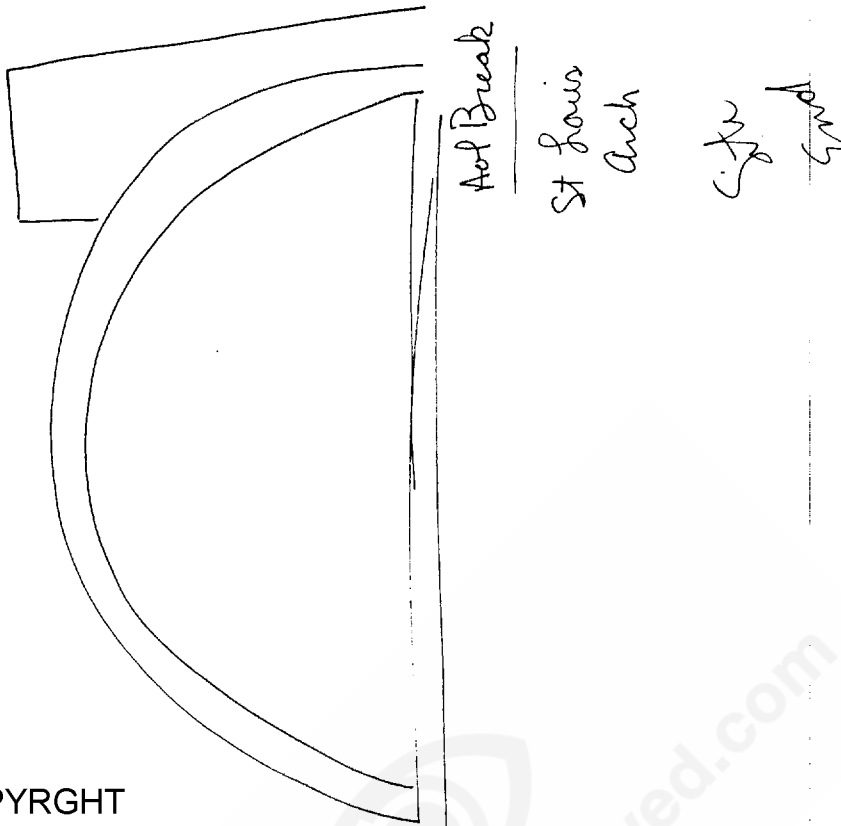
5. (U) Stage IV

(S/CL-3/NOFORN) Because of the apparent increased contact with the site that occurs on Stage III (a "widening of the aperture" as it were), data of an analytical nature begin to emerge. This follow-on process constitutes Stage IV in our nomenclature. Contained in Stage IV data are elements that go beyond the strictly observational, such as ambience (military, religious, technical), cultural factors (Soviet, Muslim, nomadic), and function or purpose (radar, power generation, BW research, missile storage). Stage IV viewing is therefore considered to be the crossover point into operational functioning with potential intelligence value.

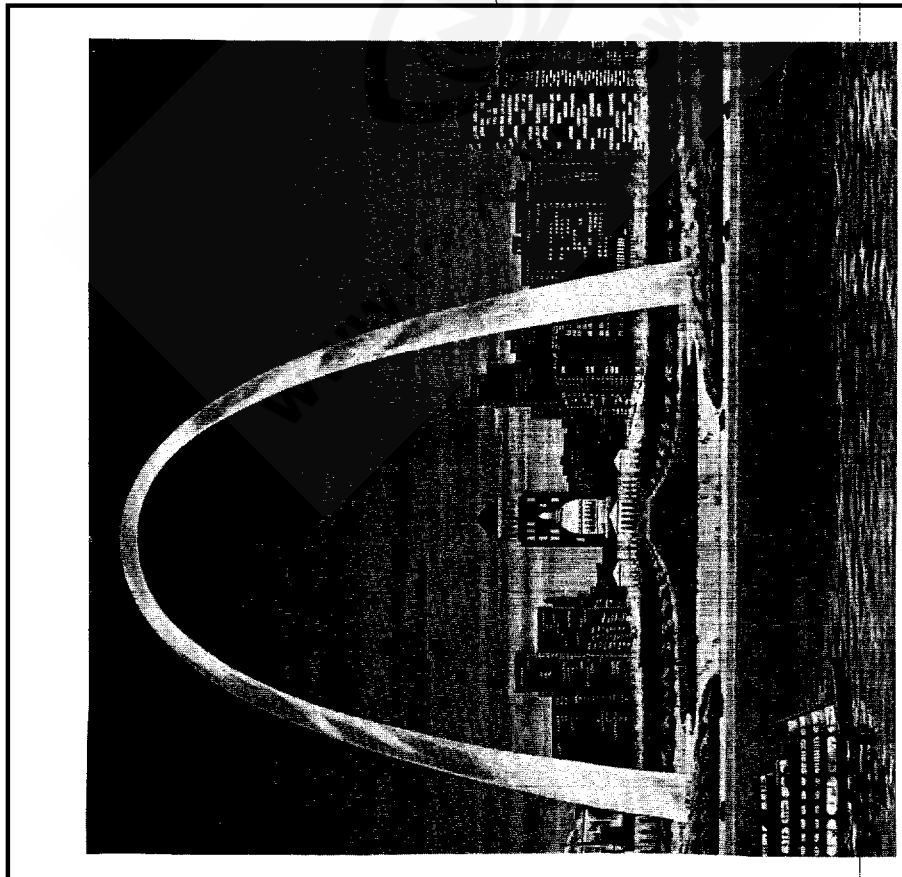
SECRET/CENTER LANE-3/NOFORN

SECRET

CPYRGHT



(b) RV RESPONSE



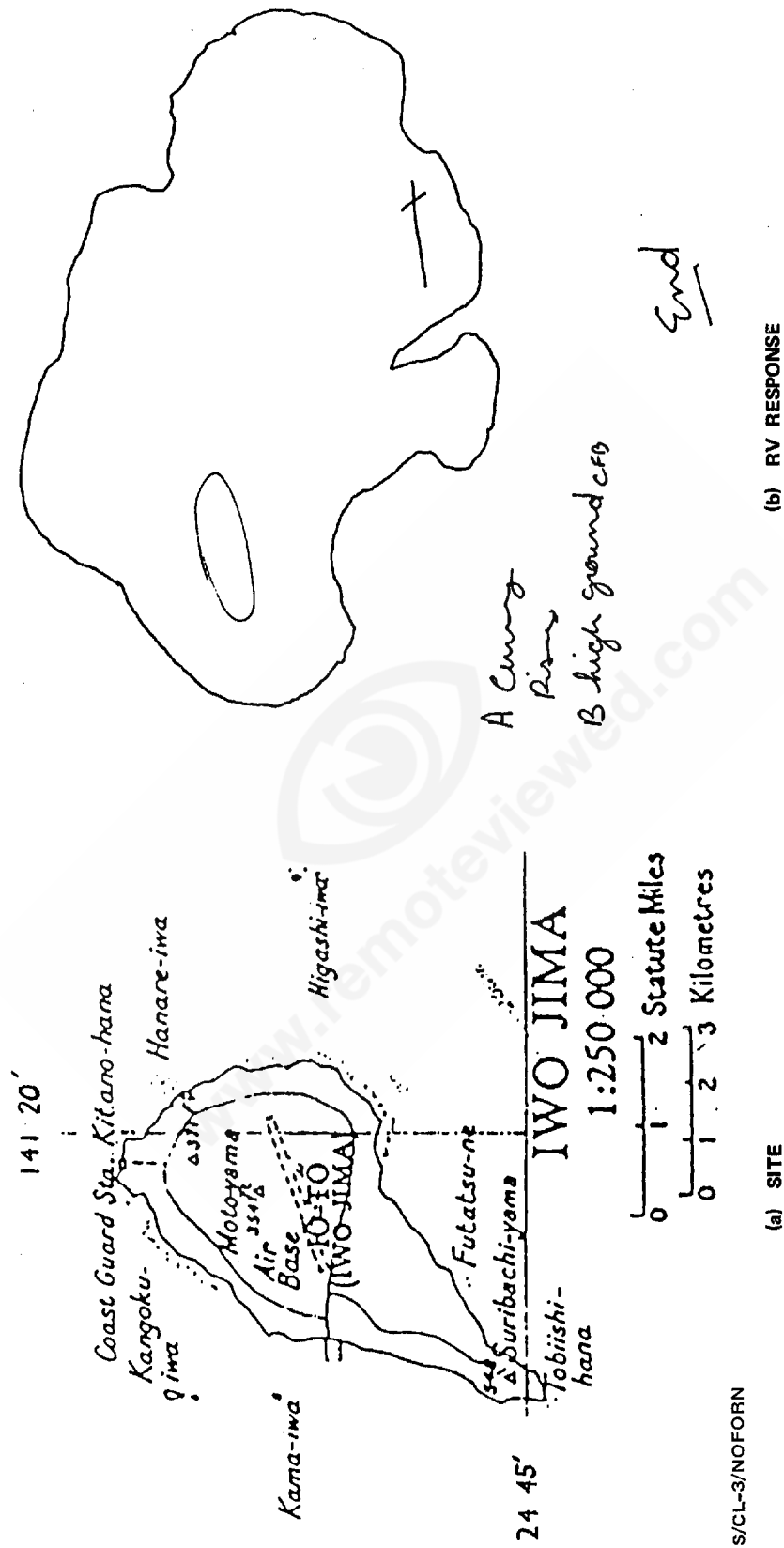
(a) SITE

FIGURE 3 (U) GATEWAY ARCH, ST. LOUIS

S/CL-3/NOFORN

SECRET

~~SECRET~~



(a) SITE

(b) RV RESPONSE

~~SECRET~~

SECRET

End

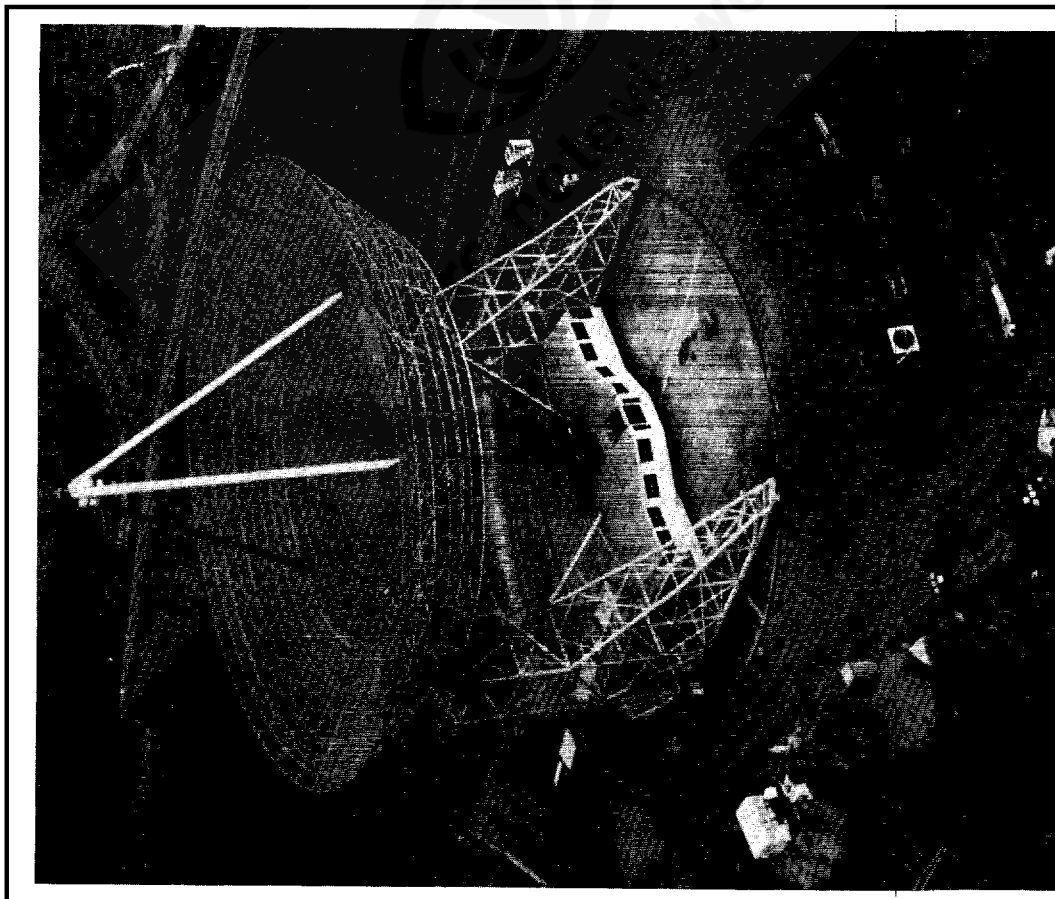
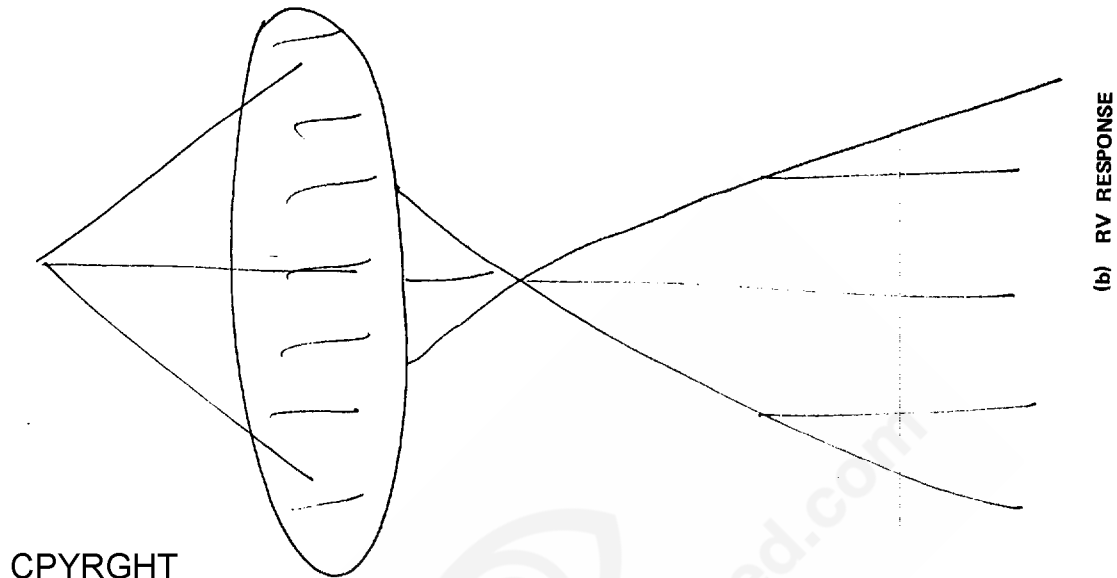


FIGURE 5 (U) STANFORD RADIOTELESCOPE

SECRET

III STAGE IV TECHNOLOGY (U)

A. (U) Overview

(S/CL-3/NOFORN) Whereas Stages I through III are directed toward recognition of the overall gestalt and physical configuration of a target site, Stage IV is designed to provide information as to function, i.e., as to the purpose of the activities being carried out at the site. Thus, Stage IV viewing transcends simple physical descriptions of what is visible to the eye, to take into account human intention. Because, from an operational point of view, it is the latter that is typically a matter of intelligence concern, Stage IV is considered to be the threshold for crossover into operational utility.

(U) In Stages I through III, information is collected in the form of ideograms, and their motion and feeling (S-I), sensations at the site (S-II), and sketches that result from expanded contact with the site (S-III). These various "carrier" signals are individual in nature, and special techniques have been developed to handle each in turn, more or less in a serial fashion. Once stabilized, Stage III forms the platform upon which can be built the more refined techniques of Stage IV.

(U) In Stage IV, the viewer is trained to accumulate data bits in no less than eight separate categories, in parallel, in addition to processing additional ideograms and sketches. These range from broad categories of sensations and dimensional references, through specific qualities (physical/technological detail, cultural ambience, and functional significance), and includes tracking of the analytical overlay line. To keep these separate signal lines on track requires exceptional control of session structure--an ability trained for in the lengthy SI through SIII training period. With these elements under control, the Stage IV data-bit-acquisition procedures can then be used to build up an interpretation as to the site's activities and functions.

~~SECRET~~
SECRET/CENTER LANE-3/NOFORNB. (U) Trainee #059 Response to Stage IV Training

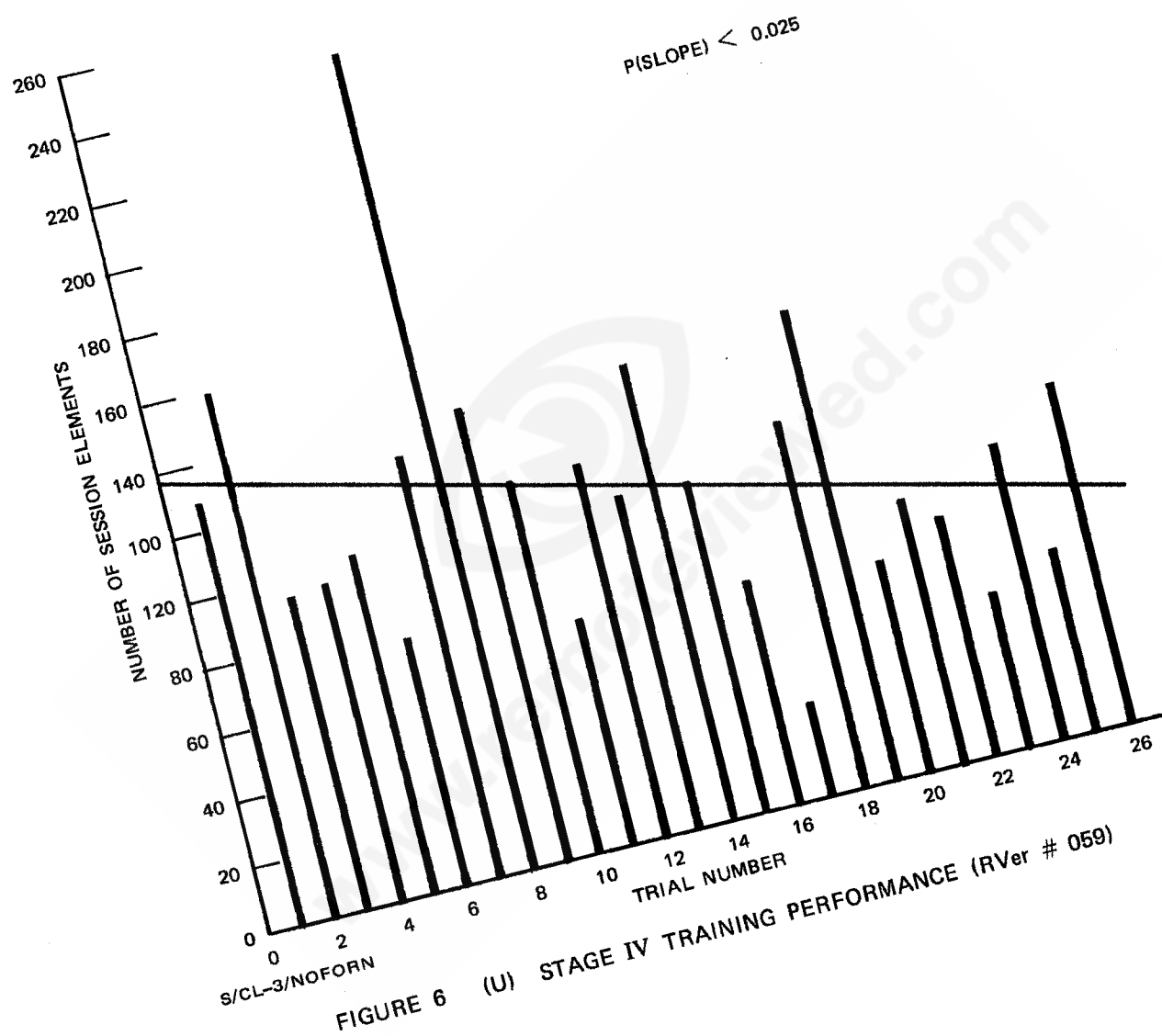
(S/CL-3/NOFORN) Trainee #059 began S-IV training during the second week of December 1983, and completed the requirements for S-IV on 22 March 1984. Thirty-one (31) S-IV training sessions were conducted with this trainee. With four sessions aborted for various reasons, and with one site requiring two sessions to complete, the 31 sessions provided a total of twenty-six (26) completed trials. The session particulars, including date/time, site, and coordinates, are listed in the Appendix. The types of sites that must be identified include churches, hospitals, dams, ruins, power plants, art galleries, libraries, missile-launch facilities, government administration buildings, schools, airports, caverns, observatories, chemical plants, and accelerators.

(S/CL-3/NOFORN) A record of the total number of data bits generated for each site (number of ideograms, sketches, sensations, dimensional references, feeling tones, physical or functional details, and analytical overlays) is given, trial by trial, in Figure 6. A given session had as many as 249 separate elements (Trial 8), or as few as 28 (Trial 17). In general, the end point of a session was recognition of the site's primary function. Although site complexity was increased as the series progressed, the number of data bits actually required (before site recognition) decreased on the average ($p < 0.025$) as proficiency with the S-IV techniques was acquired--an expected outcome.

(U) The data-bit distribution among the various categories tracked in S-IV training is shown, trial by trial, in Table 2. The first column tallies the number of ideograms, sketches, and the like, generated in the initial S-I through S-III process, the second column tallies additional elements of this type generated after the S-IV process has begun. The remaining eight columns tally the number of data bits generated for each of the S-IV channels of interest. (More specific channel labels have been passed to the client under separate cover; the specificity is protected to prevent premature disclosure to prospective trainees.) It is considered that the data bits accumulated in Channels 5 and 6 constitute

SECRET/CENTER LANE-3/NOFORN

~~SECRET~~



~~SECRET~~

SECRET/CENTER LANE-3/NOFORN

Table 2

(U) DATA-BIT DISTRIBUTION,
S-IV TRAINING SERIES, TRAINEE #059

Session/ Trial	S-I thru S-IV Basic Elements (Ideograms, Sketches, etc.)		Post-Stage IV Onset Channels								Total Number of Data Bits
			Sensations and Dimensional References		Feeling Tones		Physical/ Functional Details		Analytical Overlay Lines		
	S-I thru S-III	S-IV	1	2	3	4	5	6	7	8	
1/1	35	11	22	17	2	1	18	14	8	1	129
2/2	34		17	5	2	13	9	9	2	3	} 161
3/2	29		16	5	1	8	3	3	1	1	
4/3	36	3	22	11	5	2	9	5	3		
5/4	14	2	22	15	2	11	10	11	6	2	95
6	Abort (error in coordinate reading)										-
7	Abort (trainee medical problem)										-
8	Abort (error in coordinate reading)										-
9/5	32	3	28	11	3	2	14	5	5		103
10/6	18	2	12	6	2	3	16	12	5		76
11/7	71	2	10	9	3	6	14	6	8		129
12/8	40	15	32	20	14	20	43	34	29	2	249
13/9	26	16	16	8	10	9	21	24	7	1	138
14/10	16	4	24	8	7	7	27	13	6		112
15/11	30	5	10	8	1	10	2	2	1		69
16/12	25	9	13	7	2	11	18	22	5	1	113
17/13	38	9	13	16	2			12	11		101
18	Abort (error in coordinate reading)										-
19/14	36	20	35	13	3	8	7	5	11		138
20/15	44	13	9	14	1	14	6				101
21/16	53	3	1	1	1	1	6		2		68
22/17	28										28
23/18	27	19	13	11	1		16	20	3	1	111
24/19	38	21	21	20	1	4	20	12	5		142
25/20	18	13	9	5	1		7	11			64
26/21	16	10	15	18	2	14	5		1		81
27/22	33		7	10		2	4	2	15		73
28/23	16		7	7	1	4	7	3	2	1	48
29/24	12	13	25	9	4	8	15	4		1	91
30/25	17	4	15	3	2		9	4	2		56
31/26	27	14	14	10	5	7	10	10	7		104

(S/CL-3/NOFORN)

SECRET/CENTER LANE-3/NOFORN

SECRET/CENTER LANE-3/NOFORN

(U)

the primary source of "hard" information that in most instances appears to result in the decoding of site function.

(S/CL-3/NOFORN) To give some indication of progress through the series, we examine here some specific cases. For Trial 2, the site was a hospital; the trainee accumulated a total of 161 data bits in two sessions before identifying the site as a hospital. By Session 12 (Trial 8, Cape Kennedy), the difficulty in maintaining functional reliability while acquiring the new skills (corresponding to the expected performance-curve dip of Figure 2) surfaced in the form that 249 elements were required before site identification occurred (site named by name).

(S/CL-3/NOFORN) By Session 25 (Trial 20), the power-generating function of Kariba Dam was identified after only 57 data bits, with another seven data bits furnishing the phonetic "kirib" for a total of 64 data bits. It was also noted during this viewing that the viewer spontaneously experienced not only an expressed desire to three-dimensionally "model" the site, but the emergence of phonetics, both attributes of the higher stages (S-VI and S-VII, respectively). This we took as indicators of readiness for advancement to the following stages.

UNCLASSIFIED

THIS PAGE INTENTIONALLY LEFT BLANK

UNCLASSIFIED

SECRET/CENTER LANE-3/NOFORN

IV EVALUATION AND RECOMMENDATIONS (U)

A. (U) Completion Indicators

(U) Completion of a stage is signalled by (1) essentially flawless control of session structure while generating the required elements for that stage, and (2) production of a sequence of at least five site descriptions whose content/quality meets the requirements for that stage.

(S/CL-3/NOFORN) As indicated earlier, in Stage IV training, the viewer is required to provide information culminating in not only a description of the site, but correct identification of the function as well. These requirements were met by Viewer #059 in his final series, Trials 22 through 26. The results are summarized in Table 3 below, as well as in representative Figures 7 through 9.

Table 3

(U) STAGE IV COMPLETION TRIALS 22 THROUGH 26

Session/Trial	Site	Response
27/22	St. Patrick's Cathedral, New York, NY	Called a "church," with phonetic of "saint"
28/23	West Virginia University, Morgantown, WV	Called "school feeling"
29/24	FMC chemical plant, Newark, CA	Called "chemical factory"
30/25	Romic hazardous waste storage plant, Palo Alto, CA	Called "waste treatment plant"
31/26	Stanford Linear Accelerator Stanford, CA	Called "linear accelerator," named "Stanford Linear Accelerator"

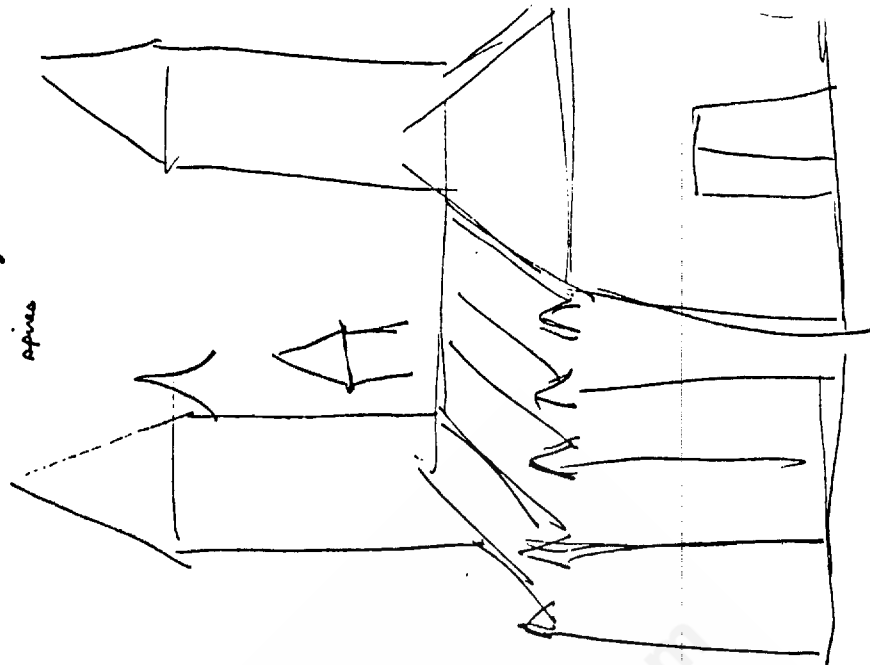
SECRET/CL-3/NOFORN

UNCLASSIFIED

religious

church

spire



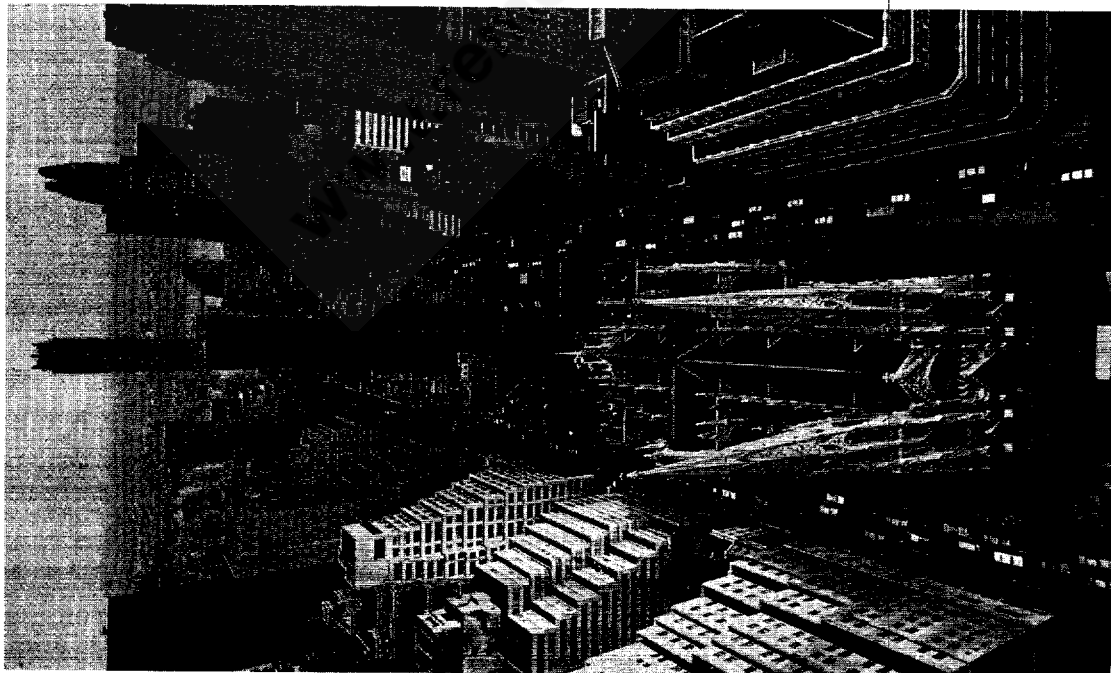
(b) RV RESPONSE

CPYRGHT

anote

Pointed
curving out
round

many



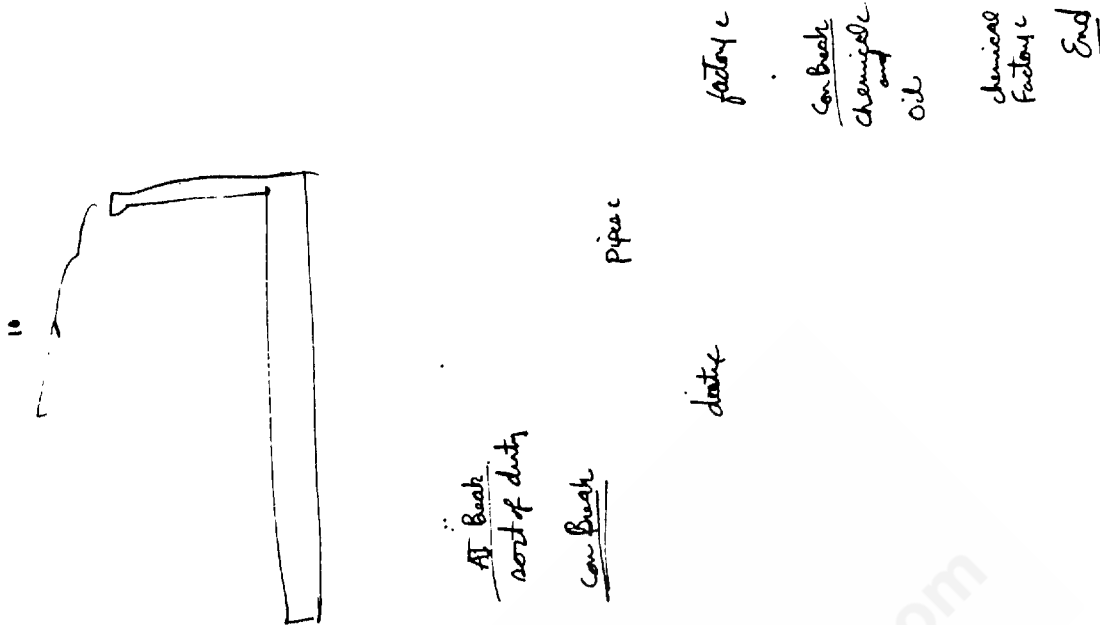
(a) SITE

UNCLASSIFIED

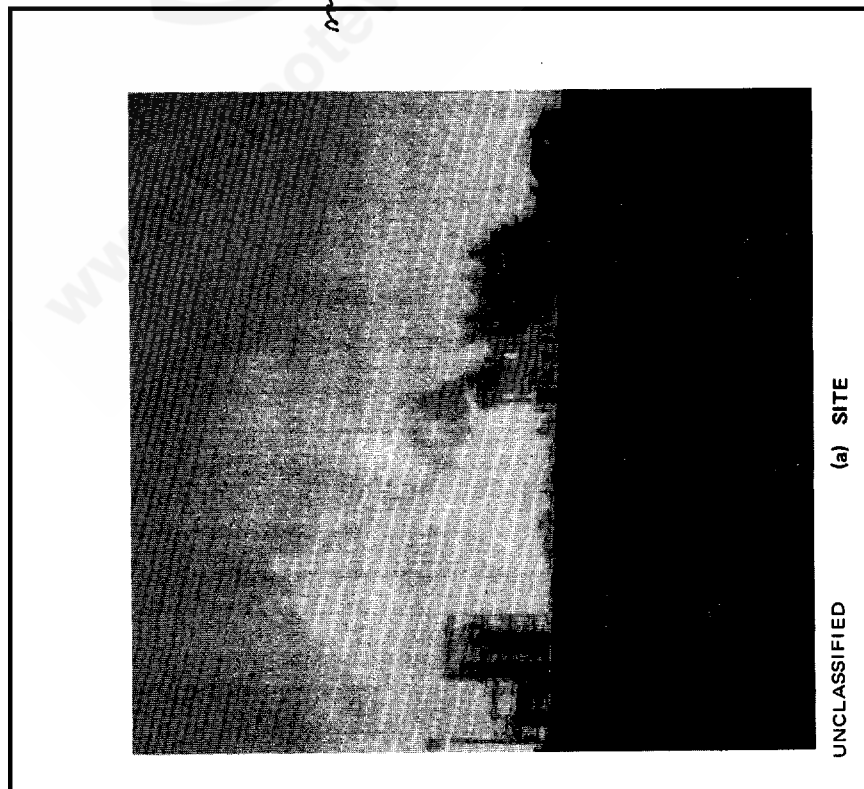
FIGURE 7 (U) ST. PATRICK'S CATHEDRAL, NYC (TRIAL 22)

UNCLASSIFIED

UNCLASSIFIED



CPYRGHT



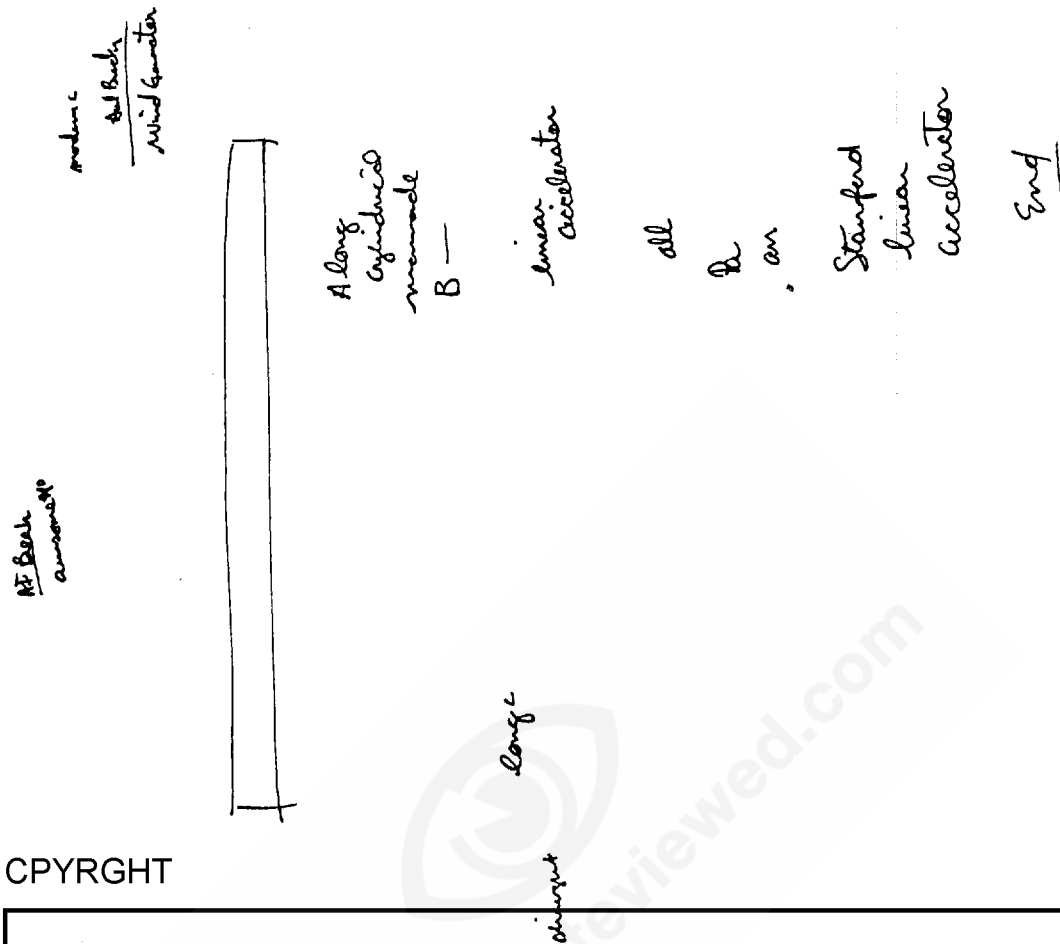
(b) RV RESPONSE

(a) SITE

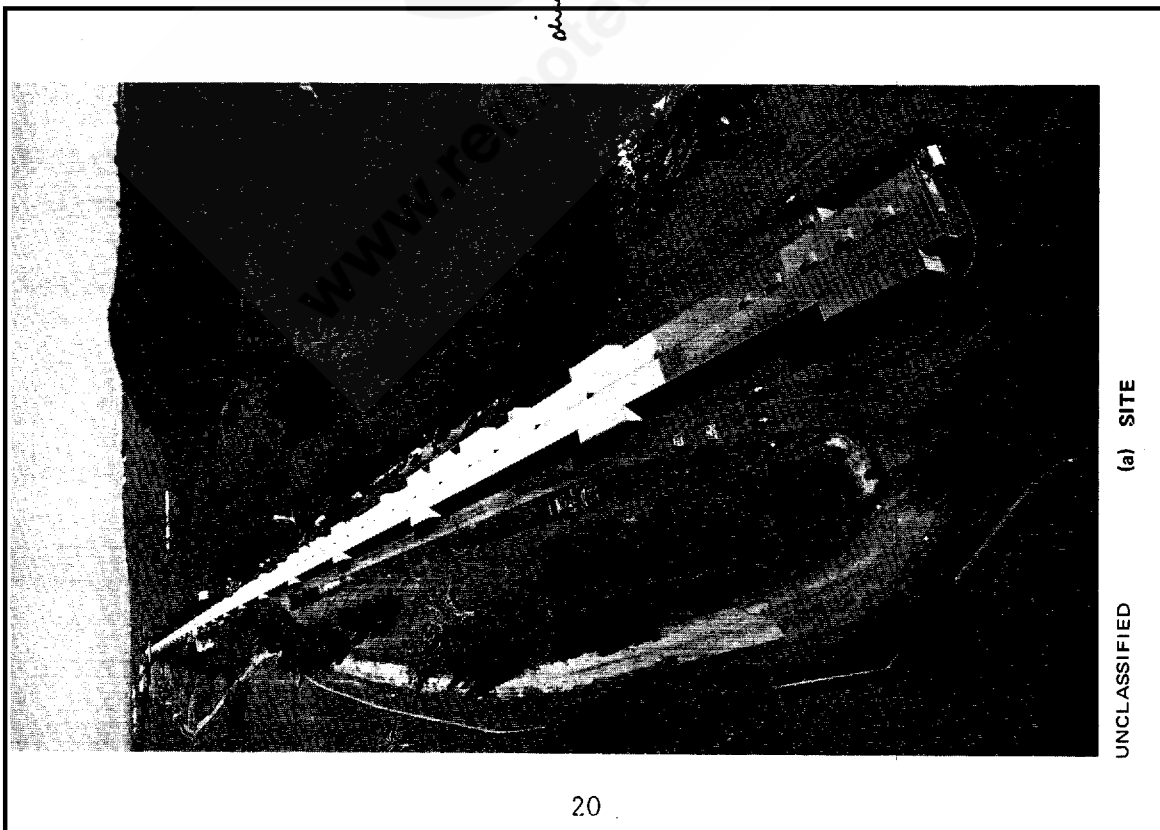
FIGURE 8 (U) FMC CHEMICAL PLANT, NEWARK, CA (TRIAL 24)

UNCLASSIFIED

UNCLASSIFIED



CPYRGHT



(b) RV RESPONSE

FIGURE 9 (U) STANFORD LINEAR ACCELERATOR, STANFORD, CA (TRIAL 26)

UNCLASSIFIED

SECRET/CENTER LANE-3/NOFORN

(S/CL-3/NOFORN) The Stage IV proficiency demonstrated in the completion series has been maintained by the trainee as work has begun on Stage VI; this provides additional evidence that a stable performance level on S-IV characteristics has been achieved.

B. (U) Trainee Evaluation

(S/CL-3/NOFORN) Other than the training monitor (#002), Viewer #059 is the first to complete S-IV training. Although previous training stages (S-I through S-III) had been pretested with other trainees, the desire of the client to move ahead expeditiously with training of this particular candidate dictated a reversal of the usual development procedure. This candidate thus provided our first research data on S-IV technology transfer, which turned out to be of exceptionally high quality. Until subsequent individuals have completed S-IV training, there is not a substantial body of work for comparison. Nonetheless, it should be stated for the record that this trainee exhibited the least of difficulties in assimilating the materials, as compared with the progress of trainees in general, and as compared with the training monitor's own progress through S-IV in particular. In addition, Trainee #059 exhibited a high professional demeanor throughout the training, and applied himself at all times with the utmost stamina and acumen. Taking these factors together, Trainee #059 was a model trainee, and thus his profile constitutes an important data point with regard to trainee selection.

C. (U) Recommendations for Follow-On Actions

(U) Given the quality of response to S-IV training of Trainee #059, two recommendations for follow-on actions are offered:

- (1) The trainee should continue in the training in order to incorporate additional skills available in the remaining stages.
- (2) Given that detailed authentication of the S-IV skills transfer (e.g., by extensive double-blind testing), was beyond the time/funding scope of the present effort, it is recommended that, in parallel with training, the client enlist the

SECRET/CENTER LANE-3/NOFORN

UNCLASSIFIED

(U)

trainee's present skill level to pursue appropriate in-house tasks to determine the overall efficacy of the training as applied to client needs.

UNCLASSIFIED

UNCLASSIFIED

Appendix

(U) STAGE IV SITES

Session/ Trial	Date/Time	Coordinates	Site
1/1	6 Dec 83/1256	30°46'54"N, 35°13'51"E	Dome of the Rock, Jerusalem
2/2	7 Dec 83/1015	37°44'22"N, 88°32'49"W	Lighter Hospital, IL
3/2	7 Dec 83/1525	37°44'22"N, 88°32'49"W	Lighter Hospital (cont'd)
4/3	8 Dec 83/1016	53°50'18"N, 77°37'50"N	La Grande Complex (dam) Quebec. Canada
5/4	9 Dec 83/0936	38°37'26"N, 90°11'13"W	St. Louis Cathedral, MO
6/*	3 Jan 84/1517	38°00'00"N, 23°44'00"E	Athens, Greece*
7/**	3 Jan 84/1522	29°57'00"N, 52°59'00"E	Persepolis Ruins, Iran**
8/*	4 Jan 84/1007	16°31'00"S, 28°05'00"E	Kariba Dam, Zimbabwe*
9/5	4 Jan 84/1010	38°44'14"N, 85°24'54"W	Clifty Creek Power Plant, KY
10/6	5 Jan 84/1009	38°53'28"N, 77°01'13"W	National Art Gallery, Washington, D.C.
11/7	6 Jan 84/0948	38°53'18"N, 77°00'17"W	Library of Congress, Washington, D.C.
12/8	9 Jan 84/1417	28°28'11"N, 80°33'46"W	Cape Kennedy, FL
13/9	10 Jan 84/1308	38°53'23"N, 77°00'33"W	Capitol Building, Washington, D.C.
14/10	11 Jan 84/0958	20°28'00"N, 97°28'00"W	El Tajun Ruins, Mexico
15/11	12 Jan 84/0932	40°46'58"N, 73°57'34"W	Guggenheim Museum, NYC
16/12	13 Jan 84/0943	38°59'25"N, 104°51'28"W	USAF Academy, CO
17/13	6 Feb 84/1349	35°17'00"N, 114°35'00"W	Davis Dam, NV
18/*	7 Feb 84/0948	38°55'45"N, 77°27'15"W	Dulles International Airport, VA
19/14	7 Feb 84/0950	39°07'36"N, 75°27'52"W	Davis AFB, DE
20/15	7 Feb 84/1350	35°03'00"N, 24°48'00"E	Phaistos, Crete Ruins
21/16	7 Feb 84/1315	32°08'25"N, 104°31'32"W	Carlsbad Caverns, NM
22/17	8 Feb 84/1102	51°29'52.5"N, 0°06'57.5"W	House of Parliament, London

UNCLASSIFIED

(U) STAGE IV SITES (cont'd)

Session/ Trial	Date/Time	Coordinates	Site
23/18	8 Feb 84/1406	14°20'00"N, 100°35'00"E	Ayutthaya Temple, Thailand
24/19	9 Feb 84/1039	33°21'16"N, 116°05'38"W	Palomar Observatory, CA
25/20	10 Feb 84/1040	16°31'00"S, 28°50'00"E	Kariba Dam, Zimbabwe
26/21	12 Mar 84/1441	33°21'16"N, 116°51'38"W	Palomar Observatory, CA
27/22	13 Mar 84/1026	40°45'30"N, 73°58'36"W	St. Patrick's Cathedral, New York, NY
28/23	19 Mar 84/1405	39°38'03"N, 79°51'17"W	West Virginia University, Morgantown, WV
29/24	20 Mar 84/0932	37°31'21"N, 122°03'05"W	Chemical Plant, Newark, CA
30/25	21 Mar 84/0944	37°28'30"N, 122°07'44"W	Romic Chemical Co., (haz- ardous waste storage), Palo Alto, CA
31/26	22 Mar 84/1041	37°25'00"N, 122°12'05"W	Stanford Linear Acceler- ator, Stanford, CA

* Abort at session start due to error in coordinate reading.

** Abort midsession due to medical problem.

UNCLASSIFIED