Final Report *January 1982*

DATABASE MANAGEMENT FEASIBILITY (U)

Prepared for:

DEFENSE INTELLIGENCE AGENCY
WASHINGTON, D.C. 20301

Attention: [redacted] SG1J
DT-1A

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I OBJECTIVE

The objective of this program is to develop concepts and materials to determine if remote viewing data can be placed on a computerized database-management system for each access and manipulation.

II INTRODUCTION

The manipulation of textual data was among the earliest applications of digital computers. From these earlier uses, it was immediately apparent that two separate requirements should be imposed on data-base management (DBM) designers:

- Develop task specific DBM programs.
- Develop generalized DBM programs that allow any specific application to be designed at a later time by the end-user.

The first requirement was easily met. An abundance of data-base management systems (DBMS) for specific tasks exist that handle everything from general accounting for business to map generation by graphic DBM. The second requirement, however, has not yet been adequately realized. Although many computer vendors offer generalized DBM design programs, they all appear to be of limited use when applied to a specific set of design requirements. The problem of creating a DBM design program is not trivial; to be useful to the widest possible audience, it must be very general. Yet, this very generality makes the final DBM cumbersome to use.

This report describes test applications of a commercial DBMS to remote viewing (RV) data and recommends a threefold approach to the general problem of RV DBM.

III DISCUSSION

In the Grill Flame mid-year report,* we demonstrated the use of a commercially available data-base management (DBM) program applied to two problems in RV data management. The first of these was the categorization and display of the results of a simulated RV analysis data base. Using the tentative assessment form,* which operating RV analysts had suggested, we analyzed 25 RVs each for 4 remote viewers. Table 1 shows a characteristic output from this data base, which is repeated here from [redacted] The column headings are the seven categories taken from the assessment form. Under each category the remote viewers are listed in ascending order of assessment averaged over all viewings to date for that category. For example, we note that remote viewer 007 was least successful at obtaining information about the geography of a site. However, when everything is considered, remote viewer 007 had the best overall utility. This and similar information might have been overlooked with manual inspection. The row below the dashed lines contains the averages for each column, which can be considered as the "facility" assessment for each category. For example, the represented facility does best on geography elements and second best when targeted against activity at the remote site.

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WHO

DO WE HAVE A CY

VALID ?

In a second example, we have used a DBMS to organize and manage a growing number of training targets from the National Geographic (375 as of this report). Our RV enhancement effort currently involves four remote viewers, six interviewers, four target preparers, and numerous target selection criteria. With this level of complexity and a growing

SG1J * [redacted] "DoD GRILL FLAME Progress Report (U)," presented at Mid-Year GF Meeting at DIA on 30 April 1981 (April 1981, SECRET).

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Table 1

RESOURCE ASSESSMENT SUMMARY
(23 Apr 1981)

Geography		Elements LS		Elements SS		Ambience		Activity		Personnel		Utility	
ID	Ave	ID	Ave	ID	Ave	ID	Ave	ID	Ave	ID	Ave	ID	Ave
007	1.39	712	1.15	007	0.71	712	0.95	712	1.14	007	0.53	712	0.55
126	1.44	126	1.33	712	0.73	126	1.50	126	1.62	531	1.21	531	1.38
531	1.59	531	1.57	531	1.31	531	1.75	531	1.75	712	1.56	126	1.55
712	2.63	007	2.09	126	1.56	007	1.81	007	1.86	126	2.00	007	2.63
	1.76*		1.53*		1.08*		1.50*		1.59*		1.32*		1.53*

*Average of each column.

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number of targets, a DBMS was mandatory to avoid duplication and to provide target statistics.

As an example of the DBMS output, Table 2 shows a small portion of the existing data. The targets were selected solely on the basis of their use as calibrations for operational RV sessions. They are displayed chronologically as a demonstration of a sorting procedure.

Both of the above DBM applications were done on a large-scale PRIME 750 computer using the PRIME Corporation's POWER+ packaged DBMS. In spite of the computing power of the PRIME 750 and generality of POWER+, four specific problems were identified: This DBMS:

DOES THIS INFER THAT THIS IS BEST COMMERCIAL DBMS & IT WON'T WORK.

(1) Did not allow for the formation of specific data records that contained parts of separate records from the remaining data base.

(2) Did not easily allow a change of data base.

(3) Did not allow for tree structures.

(4) Can be installed on the SRI International's PRIME 400 at a cost of $75,000 to $125,000.

Table 1 is an example of the first problem described above. The simulated data base was entered and stored by grouping together all the parameters from the analysis of a single remote viewer for a single operational session. Yet, to provide the summary information in Table 1, we must collect scores and IDs from across many sessions. In fact, Table 1 was manually constructed to demonstrate a concept and was beyond the capability of POWER+.

WHAT POWER" WON'T DO

The second problem applies to both DBM examples. In developing the designs of the respective data bases, it was necessary to modify them in progress to assure an optimum configuration. POWER+ requires that all the data be reentered into the new design. Although POWER+ has a file conversion capability that makes possible reentry of data from a disc, it was cumbersome; therefore, we decided to reenter the data manually.

"

WHICH IS MORE CUMBERSOME & PEOPLE INTENSE ?

Table 2

TRAINING TARGET DATA
(23 April 1981)

Date	Time	Latitude	Longitude	Target Location	Monitor	Class	Preparer
15 Feb 1980	1021	42°34'N	08°44'E	Calvi, Corsica	Puthoff	C	Unknown
3 Mar 1980	0910	11°26'S	53°04'W	Campo de Diauarum, Brazil	Puthoff	B	Unknown
3 Mar 1980	0917	14°00'N	121°00'E	Lake Taal-Luzon, Phillipines	Puthoff	B	Unknown
3 Mar 1980	1000	12°30'N	70°00'W	Aruba Island, Lesser Antilles	Puthoff	C	Unknown
1 Jul 1980	0900	21°38'N	157°04'W	Oahu, Hawaii	[redacted]	C	Unknown
1 Jul 1980	0952	31°30'N	35°30'E	Dead Sea, Israel/Jordon		C	Unknown
2 Oct 1980	0820	18°29'N	66°08'W	San Juan, Puerto Rico	Puthoff	C	Puthoff
2 Oct 1980	0900	58°12'N	06°23'W	Stornoway Lewis Is., Scotland	Puthoff	C	Unknown
2 Apr 1981	0905	34°40'S	58°30'W	Buenos Aires, Argentina	Puthoff	C	Harary
2 Apr 1981	0945	45°30'S	165°30'E	Dusky Sound, New Zealand	Puthoff	B	Harary
3 Apr 1981	0807	22°30'N	88°20'E	Calcutta, West Bengal-India	[redacted]	C	Harary
3 Apr 1981	0815	51°13'N	04°25'E	Antwerp, Belgium		C	Harary
3 Apr 1981	0840	41°02'N	28°57'E	Istanbul, Turkey		C	Harary
3 Apr 1981	0920	39°44'N	44°23'E	Mt. Ararat, Turkey		B	Harary
3 Apr 1981	1010	35°09'N	32°47'E	Vouni, Cyprus		B	Harary
3 Apr 1981	1015	41°50'N	71°28'W	Providence, Rhode Island		C	Harary
6 Apr 1981	0817	00°14'S	78°30'W	Quito, Ecuador	Puthoff	C	Harary
6 Apr 1981	0824	39°18'N	76°38'W	Baltimore, Maryland	Puthoff	B	Harary
6 Apr 1981	0827	36°36'N	83°40'W	Cumberland Gap, Kentucky-Tennessee-Virginia	Puthoff	B	Harary
6 Apr 1981	0835	00°19'N	32°35'E	Kampala, Uganda	Puthoff	B	Harary
6 Apr 1981	0845	37°37'N	79°33'W	Natural Bridge, Virginia	Puthoff	B	Harary
6 Apr 1981	0930	13°32'S	71°57'W	Cuzco, Peru	Puthoff	B	Swann
6 Apr 1981	0936	28°59'N	13°40'W	Montana del Fuego, Lanzarote Canary Island	Puthoff	B	Swann
6 Apr 1981	0945	51°29'N	00°38'W	Windsor Castle, Windsor England	Puthoff	B	Swann
7 Apr 1981	0940	29°25'N	98°30'W	San Antonio, Texas	Puthoff	B	Harary
8 Apr 1981	0836	20°19'N	103°10'W	Chapala Lake, Mexico	Puthoff	B	Swann
8 Apr 1981	0956	33°39'S	78°58'W	Robinson Crusoe Is., Juan Fernandez Island	Puthoff	B	Unknown
8 Apr 1981	1116	51°51'N	01°21'W	Blenheim Palace, Oxon England	Puthoff	B	Swann
8 Apr 1981	1119	60°00'N	152°00'W	Cook Inlet, Alaska	Puthoff	B	Swann
9 Apr 1981	0845	03°02'S	37°20'E	Mt. Kilimanjaro, Tanzania	Puthoff	C	Humphrey
9 Apr 1981	0923	38°22'N	110°21'W	Canyonlands Park, Utah	Puthoff	B	[redacted]

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The third problem arises in a training evaluation environment. The target management data shown in Table 2 displays only a small portion of the data that is available for each of the targets. Each target is classified as to the principal type of target with regard to large-scale geographical features (e.g.; a body of water, an island, or a mountain). For purposes of evaluation, it is necessary to know details of each of these major features. For example, one may want to determine how many targets had "muddy streams" as the particular form of "water." POWER+ was incapable of providing this capability. Thus, only a coarse target classification was possible. A "tree-structured" data base is one of the easiest solutions for this problem. A properly designed tree structure allows for easy modification and simple implementation of complex searches such as the one described above.

It is not that tree-structured data-base systems do not exist. Rather, they tend to be large (require large main-frame memories) and require fast processors. Typically, these data bases include a large number of features that are not required in our application and unnecessarily burden the speed/memory requirement of the system.

The deficiencies described here are not unique to POWER+. Each commercially available DBMS will have similar problems with regard to our application. However, there are portions of our application that may have reduced requirements and can be solved with simple data-base management systems.

SO YOU BUY THE ONE THAT BEST SUITS THE NEEDS ?

BROAD GENERALIZATION ?

IV CONCLUSIONS

Depending upon the exact data-base design criteria, commercially available DBMS may possibly be applied to RV data and target management on a limited basis. Such systems are available for a combined hardware/software cost of approximately $5,000. These systems have the added advantage of being "desk-top" size and are single user so that the entire system may be maintained within a secure environment.

If we consider the security requirement of the general GRILL FLAME program and budget constraints, we conclude that:

SMOKE SCREEN?

- Full data-base management of RV data is possible, but must be developed in house.
- A complete DBMS must be self-contained, flexible, and operate as a single-user on a micro-mini-computer.

WHY PAY A PHD @ MUCH $ PER/HR TO DO THIS

V RECOMMENDATIONS

As a result of the demonstration applications, discussed in the body of this report, and of a survey of available DBM systems, we recommend a threefold approach to implement computerized DBM of RV data, RV training, and psychoenergetic intelligence information.

We recommend:

(1) That a complete DBMS be purchased to facilitate training. This system would be exclusively used for training target management and can be completely maintained within the training program.

(2) That a micro-mini-computer-based DBM system be developed that is tailored to the RV requirements to provide optimal evaluation and management of operational RV sessions.

(3) That the requirements of such a system first be defined to initiate development of a psychoenergetic intelligence data-base system. These requirements would then aid in identifying the particular DBMS that is needed.

WHY DON'T WE SEND JOE'S WORK TO HIM

CMT: THIS COULD HAVE BEEN DONE BY AN INTERMEDIATE SYS ANALYST. WHY DI[D] WE SPEND THE TIME AND MONEY HAVING A PHD DO IT

DON'T THEY HAVE BETTER THINGS FOR HIM TO DO !

POOR MGT !

J/28 MAY 82