

MEMORANDUM

10/21/81
DWM

To: Chairman Shad
From: Benjamin Milk
Executive Director *Ben M.*
Re: MOSS Briefing Memorandum
Date: July 20, 1981

I. What MOSS Is

MOSS is a comprehensive information system for use at both management and operating levels. At the management level MOSS provides an important data base which can be used for analysis and modeling of activities in the securities industry as well as for evaluating effectiveness of Commission programs. At the operational level, MOSS provides fundamental publicly available information which can be related to non-public information available only in the SEC or in the industry.

We perceive the benefits of MOSS to include the following:

- provides single source of diverse information currently collected in an ad-hoc manner
- provides overview of marketplace not falling under the jurisdiction of any single SRO
- provides audit tool for support of Commission's oversight responsibilities
- provides a catalyst for encouraging the industry to upgrade its surveillance and compliance functions
- provides technological and operational expertise which can be shared with the industry
- facilitates increased productivity and efficiency and enables Commission to more easily absorb resource reductions

With an information system such as this, which supports our relationship with outside entities, our staff will be able to draw upon data that enables the Commission to regulate more intelligently. We believe that this type of intelligent regulation can eventually develop into an almost "transparent" type of regulation, as the Commission becomes decreasingly dependent on the industry for acquiring specific information needed to carry out its responsibilities.

We recognize that information systems require strict control to avoid abuse. However, the Commission's top management is sensitive to this need and with careful internal scrutiny and the opportunity for industry participation I believe that any kind of burdensome regulation stemming from MOSS is highly unlikely.

II. Evolution of MOSS

The MOSS system, as we know it today, does not represent the fulfillment of some preconceived plan. Rather, it reflects the recognition and the gradual evolution -- still underway -- that the Commission must better understand the technicalities of the marketplace, must be able to draw upon state of the art skills in overseeing the SRO's, and must somehow speed up and simplify the process of acquiring market data when needed.

1. Evaluation of SEC Information Systems and Quality of Surveillance by SRO's

The original study was carried out by an independent consulting firm with extensive experience in the securities industry.

This firm, Monchik-Weber Systems Consulting, Inc., lists many of the top brokerage firms and several exchanges as its clients. Their study concluded that the SEC was severely hampered in efficiently and adequately performing its regulatory responsibilities due to the lack of management and operational level information systems.

Additionally, the study found that while the securities industry maintained information systems far superior to those of the Commission, these systems had serious shortcomings; moreover, the Commission was shown to be totally dependent on these other organizations to supply us with even the most basic information concerning the marketplace. This dependence was made worse as a result of slow turnaround time in responding to Commission requests. SRO surveillance functions were under-staffed, under-budgeted and to a significant degree, inadequately supported by automated capabilities.

The study recommended that the Commission undertake the implementation of some type of automated information system for both oversight and surveillance, and proposed a wide variety of other functions with which such a system could be helpful. A number of these proposals were viewed as inappropriate or felt to be outside the scope of the Commission's role and were rejected.

2. Design and Implementation Plan for a Comprehensive Information System to Serve the Commission's Needs

Focusing upon selected functions approved by the Commission, the SEC contracted with the same outside consultant to provide

a functional design and implementation plan which would provide both the management and operational information necessary for the SEC to carry out its responsibilities in the face of technological change, rapidly expanding markets, and new investment instruments. The final work product contained a description of the fundamental and special information needs of the operating divisions. The production of this document required extensive interviews with representatives from the Commission's divisions, the SRO's, broker-dealers and securities information vendors. The report contemplated that full implementation of this system would require approximately five years and it was estimated to cost 12 million dollars.

3. Development and Implementation of a Pilot System

In an effort to test the feasibility of such an enormous and complex system, the Commission elected to initiate implementation of an extremely scaled down version of the full system. This system, referred to as the pilot, enabled collection and storage of the basic market information, i.e. trades, quotes and clearing information, and provided very limited capabilities for the analysis of this and other information for specific indications of potential violative or manipulative activity.

The Commission contracted with Monchik-Weber to develop the necessary software, provide computer facilities and operate the system in New York for a set term, providing reports to the Commission throughout. As a result of this effort, the Commission's staff developed a much stronger and more detailed understanding

of market operations data availability and the possible utility of such information in order to save time, effort and money.

Concurrent with the development of the pilot, one of the Commission's Congressional Appropriations Committees undertook an extensive review of the then proposed system. Several hearings, meetings with staff and a great deal of correspondence followed. Once convinced that the project was well thought out and that the Commission was committed to a logical usage of the system, both houses of Congress approved the first two levels of proposed implementation, with the understanding that this program would be stretched out over three years in order to ensure responsible and reasonable growth. In light of concern raised by the industry, Congress established a 6-month reporting period whereby the Commission submits a report on MOSS progress and the industry is provided with an equal opportunity to evaluate any burdens created by MOSS.

4. Transfer of Pilot System to SEC Headquarters

Once the Commission had evaluated the success and viability of the Pilot System, a project was initiated to transfer the computer software from Monchik-Weber in New York, to the SEC in Washington. Parallel with this effort, the Commission has been pursuing the acquisition of computer hardware and other facilities to accomodate the pilot system operation.

5. Upgrade Pilot System - Integrate Additional Fundamental Data, Management Information Support and Surveillance Products

We are currently poised to initiate upgrades to the pilot system which based on prioritization, will integrate publicly

available securities information, e.g. news, corporate announcements, filings (periodic reports, registration statements, Forms 3, 4, 144, and 146) and provide automated capabilities for analytical and statusing functions supporting the Divisions of Market Regulation and Enforcement.

It is important to note that throughout this process, we have become increasingly sensitive to the realistic or appropriate boundaries of the MOSS system. A study of our goals as reflected in the original report and the goals today as reflected in the current MOSS Project Plan, show a far more modest approach to solving our informational needs with a proper balance of SEC/SRO responsibilities.

III MOSS Resource Commitments

Between July, 1978 and July, 1981, the Commission has spent approximately \$1.4 million and devoted approximately 15 man/years to MOSS. As a result, we are at this point in time on the verge of being able to provide the Commission with an important data base integral to a wide variety of operations in addition to surveillance applications.

Specifically, we have already committed approximately \$1.4 to the evaluation survey, to the system design, to the pilot and to the purchase of certain limited peripheral equipment. At this time we are prepared to award a contract for the main computer (approximately \$500,000) and we have located interim space for the computer in the GAO building, pending a move to a new headquarters location. In addition, a proposed software solicitation

is presently being reviewed by GSA; we expect to solicit proposals for multiple software awards totalling up to \$600,000 sometime during the month of August for award in September. Since most of the software work will not actually take place until the beginning of FY '82, there is still time to modify the types of software. This is the case because the contracts will not be based on design specifications, but rather, on vendor expertise, and they will be constructed on a task order basis as opposed to fixed price. The contracts can thus be awarded now without committing the Commission to development of specific programs.

With respect to the hardware solicitation, proposals have been received and evaluated. Assuming that the vendors will extend their price until September 1, 1981, as informally agreed upon, the award can be made up until that date. If the prices are not extended, then award must be made by July 31, 1981.

If we fail to award the hardware contract, the money appropriated for FY '81 for hardware would not be available in FY '82. Similarly, if the software money is not spent this year, it will not carry over to FY '82. In addition, the Commission could be vulnerable to a suit for bid preparation costs from the various hardware vendors if no contract is awarded.

Although Congress authorized the expenditure of \$1,760,000 for the first year of MOSS implementation, it presently appears that close to \$200,000 of the funds will not be spent, even assuming all presently anticipated expenditures are made. Many of the cost savings in FY '81 are a result of a shift to a

greater reliance on internal staff efforts instead of outside consultants. This change was largely made possible by recruiting one of the principal Monchik-Weber consultants to the Commission as project manager for the technical implementation. Hopefully, additional cost savings can be recognized through this approach.

Personnel dedicated exclusively to MOSS include one person in the Office of the Executive Director and a project team composed of five programmers in the Office of Information Systems Management; personnel assigned on a part-time basis to MOSS include three people in the Division of Market Regulation, two in the Division of Enforcement, two in the Office of Information Systems Management, and one in the Office of the Executive Director.

The FY '82 budget calls for an expenditure of \$1,130,000 including an additional \$330,500 for hardware upgrades, \$435,000 for software development, \$190,000 for outside services and \$180,000 for eight additional staff members. We anticipate, however, that \$300,000 may be saved due to greater reliance on inside data processing talent.

Finally, it should be noted that changes in the surveillance scope and operations of MOSS not anticipated during Congressional discussions, are expected to eliminate the need for certain hardware and software projected at a savings of approximately one million dollars.

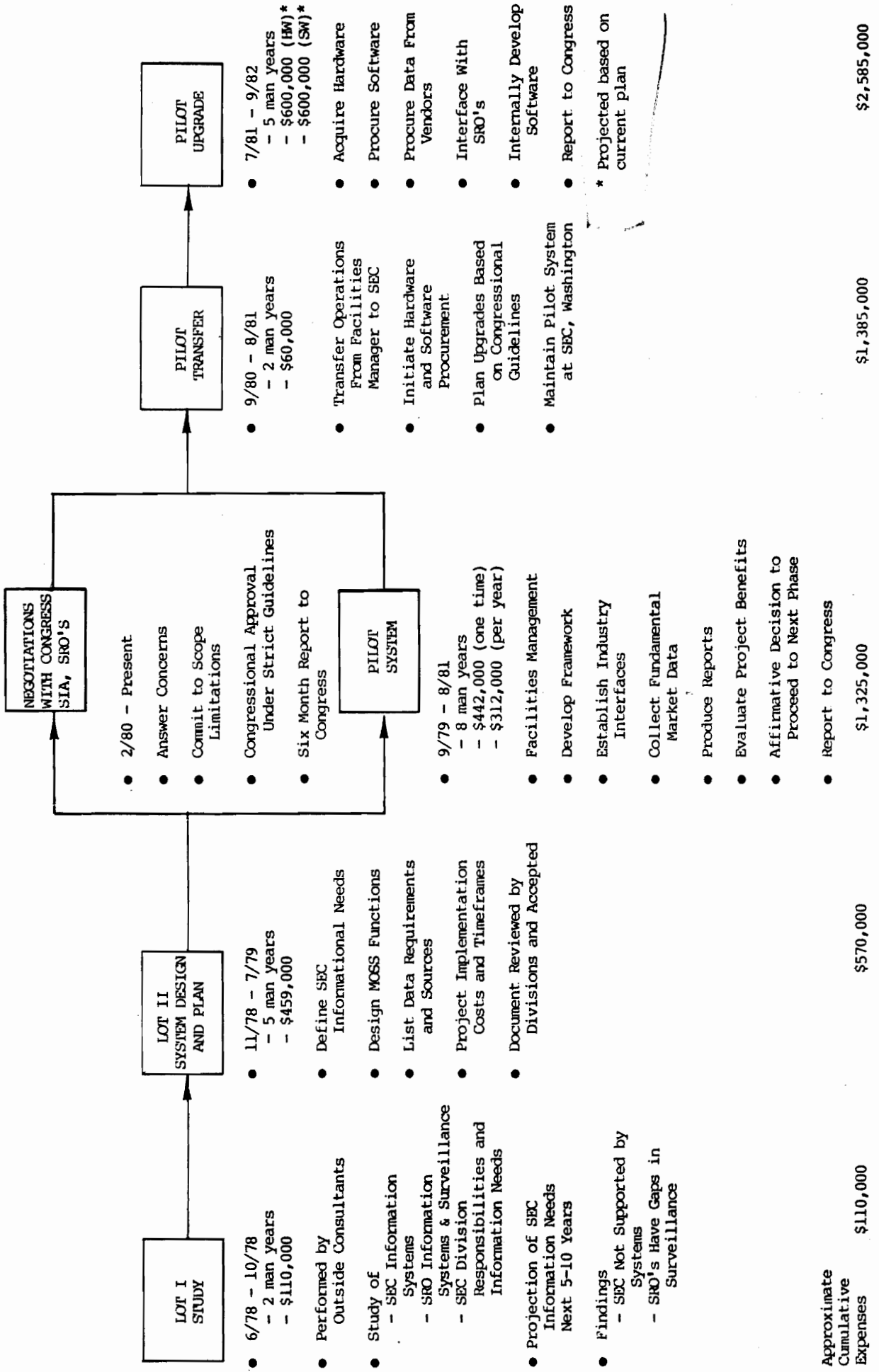
Conclusion

We feel that this review is very timely. Not only is it necessary in order to guide our present contractual relationships,

but the system is on the brink of the first step of its full scale development. Only with the acquisition of the planned hardware and that software budgeted for FY 1981 can we capitalize on the time and money invested to date and the enormous potential for consolidating mission-critical information which can now only be acquired in an expensive and cumbersome way.

The decision to proceed at this juncture represents an expenditure of approximately \$1.1 million and in no way locks the Commission into a heavily surveillance-oriented mode. Rather, this will enable you to oversee the development of MOSS and ensure its consistency with changing Commission objectives.

MOSS PROJECT
EVOLUTION



MOSS - Contractual Relationships

FY '81 - FY '82

	MOSS FY'81 October-June	July	August	September	MOSS FY' 82 October
MOSS pilot in New York (approx. \$200,000)					
MOSS pilot conversion (approx. \$60,000)					
MOSS pilot in Washington (SEC)					Additional staff (8) (approx. \$180,000)
Hardware Solicitation (approx. \$450,000)				(Award July) (Possible extension Sept. 1981)	
				Hardware upgrades (approx. \$100,000)	Hardware upgrades (approx. \$230,000)
				Software solicitation (award September) (approx. \$600,000)	Additional software development (approx. \$435,000)
Consolidated Ticker (New York) (approx. \$130,000)					Consolidated ticker (approx. \$130,000)