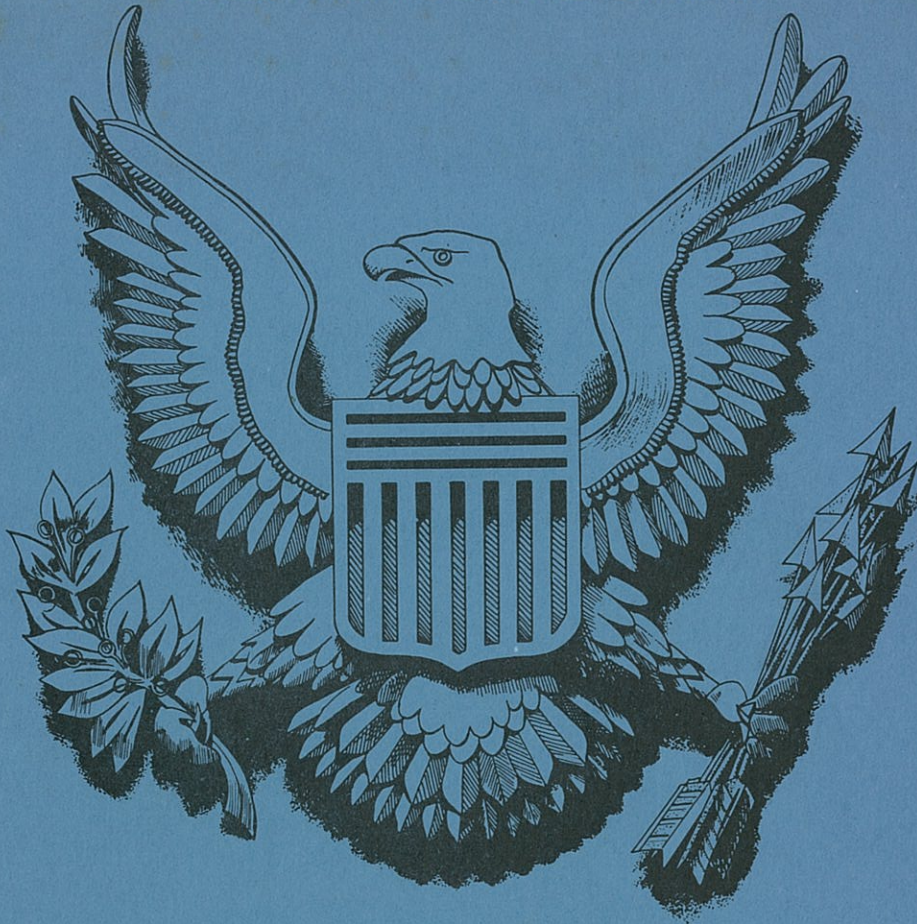


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U.S. SECURITIES AND EXCHANGE COMMISSION



**SECOND SIX-MONTH REPORT TO**

***The Senate Committee on Banking, Housing, and Urban Affairs***

***and***

***The House Committee on Energy and Commerce***

REGARDING

**IMPLEMENTATION**

OF THE

**MARKET OVERSIGHT AND SURVEILLANCE SYSTEM**

**October 1, 1981**

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Attachments

- A. Letter to John S.R. Shad, Chairman of the Commission, from Donald D. Kittel, Executive Vice President, NYSE, dated August 14, 1981, proposing an Inter-Market Surveillance System operated by the SROs.
- B. Letter to John S.R. Shad, Chairman of the Commission, from John J. Phelan, President, NYSE, dated August 14, 1981, concerning the establishment of a complete transaction audit trail for the NYSE.
- C. Letter to John J. Phelan, President, NYSE, from John S.R. Shad, Chairman of the Commission, dated August 28, 1981.
- D. MOSS Project expenses - fiscal years 1981 and 1982.

## I. Introduction

On October 1, 1980, Congress authorized appropriations for the Securities and Exchange Commission (the "Commission") for fiscal years 1981 through 1983. 1/ Included in that budget authorization was approval of funding for the Commission's Market Oversight and Surveillance System ("MOSS"). This approval required the Commission to report to the Senate Committee on Banking, Housing, and Urban Affairs and the House Committee on Energy and Commerce (formerly the House Committee on Interstate and Foreign Commerce), at six-month intervals, on progress under the MOSS project, the purposes for which MOSS information is being used, the cumulative costs of the MOSS project both to the Commission and to the self-regulatory organizations ("SROs"), and the steps that the Commission intends to take in each ensuing six-month period to implement the MOSS project under the general schedule approved jointly by these Congressional oversight committees. Specifically, in authorizing the Commission to proceed with implementation of MOSS through fiscal year 1983, each of the oversight committees said:

The Commission will report to the Committee, at six-month intervals, on the cumulative cost of the MOSS project, both to the Commission and to the self-regulatory organizations, and on the effectiveness of the project in enhancing the surveillance of the securities markets. At the same time, the Commission will report to the Committee concerning steps it plans to take with respect to MOSS during the ensuing six months and the projected expenditures, and estimated cost impact on the SROs, associated with those steps.2/

This report is the second of the six-month reports that the Commission will be submitting to Congress as the MOSS project proceeds.

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1/ Small Business Investment Incentive Act of 1980, Pub. L. No. 96-477, 94 Stat. 227 (1980). The portions of the Act relating to the Commission's budget authorization were originally reported out of Committee by the Senate and the House of Representatives on May 15 and May 14, 1980, respectively. See Report of the Senate Committee on Banking, Housing, and Urban Affairs to Accompany S. 2465, S. Rep. No. 96-752, 96th Cong., 2d Sess. (1980) ("Senate Report") and Report of the House Committee on Interstate and Foreign Commerce to Accompany H.R. 6830, H. Rep. No. 96-961, 96th Cong., 2d Sess. (1980) ("House Report"). The Committee reports contain identical language with respect to the MOSS authorization.

2/ Senate Report at 6, House Report at 3-4.

The genesis of the MOSS project is described in detail in the first of the six-month reports submitted to the Congress by the Commission. <sup>3/</sup> The First Report also included a description of MOSS, a discussion of the analytical algorithms employed to monitor stock and option trading, and a statement of the Commission's general policy on the use of MOSS data consistent with the self-regulatory process.

Although this report will reference much of the information contained in the First Report, for the sake of brevity that information will not be reiterated here. This report focuses on the Commission's plans for the next six months regarding MOSS and on the Commission's activities in the last six months related to MOSS, including conversion of the pilot project to operate on the Commission's computer and procurement of computer programs and new computer equipment.

The report also discusses an initiative by the SROs to establish a program for the surveillance of inter-market trading activity, which would be operated by the SROs, and the Commission's role in the implementation of that proposal. The Commission believes that the SRO proposal represents an important opportunity to foster the self-regulatory scheme embodied in the Securities Exchange Act of 1934 through the cooperative efforts of the Commission and the SROs. Achievement of the objectives set forth in the SRO proposal would significantly enhance the quality of market surveillance and, at the same time, would reduce the Commission's costs related to oversight of SRO surveillance efforts. Accordingly, the proposal has the Commission's full and active support.

## II. Implementation of the Congressional Workplan for MOSS

In its three-year funding authorization for the Commission, the Congress established a workplan for MOSS for fiscal years 1981, 1982, and 1983. Under this workplan, the Commission is authorized by Congress, during fiscal year 1981, to: (1) procure the hardware and software necessary to transfer the MOSS pilot project to the Commission's headquarters in Washington, D.C.; (2) begin collecting in Washington, D.C., the clearing data that the pilot project is already collecting in New York City from the National Securities Clearing Corporation ("NSCC") and the Options Clearing Corporation ("OCC"); (3) begin collecting directly from various exchanges data on equity trade and order

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<sup>3/</sup> SEC, First Six-Month Report to the Senate Committee on Banking, Housing, and Urban Affairs and the House Committee on Energy and Commerce Regarding Implementation of the Market Oversight and Surveillance System. (April 1, 1981) ("First Report").

activity of option market makers; and (4) begin discussions with the exchanges and the NASD in preparation for receiving additional information for MOSS, including broker-dealer quotation and trading information for market makers on NASDAQ, the automated quotation and trading system of the National Association of Securities Dealers, Inc. ("NASD"). 4/

A. Transfer of the Pilot Project to Washington, D.C.

In order to evaluate the feasibility of actually building a system such as MOSS, the Commission initiated a scaled-down pilot project of portions of the proposed system in New York City in early 1980. 5/ The pilot system began operations initially with only ten securities. Throughout 1980, and the early part of 1981, the Commission slowly added securities from the stock and option exchanges to the MOSS data base, and an initial set of thirteen computer algorithms designed to detect unusual trading patterns was developed, tested, and processed with reference to this data base. 6/ By the middle of February 1981, this initial set of thirteen algorithms was in place, and the system was reviewing some types of trading activity for approximately 670 stocks and 20 option classes on a daily basis. 7/

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4/ Senate Report at 4, House Report at 4-5.

5/ The term "pilot project" may be somewhat misleading. The project is not a separate endeavor from the larger MOSS system envisioned in the budget authorization. Rather, it is expected that the MOSS pilot system will evolve into the larger MOSS system. The advantage of the pilot has been that it has given the Commission the ability to test the system design and data collection capabilities of MOSS on a scaled-down system using a manageable sample of stocks and options. This has afforded the Commission a number of benefits in the MOSS testing stage, and because the pilot has been designed in a manner to allow it to be transferred in modules into the first stages of the permanent MOSS system, some cost savings will be afforded to the Commission in connection with the implementation of those stages of the larger MOSS projected.

6/ The algorithms were designed to use information that was already being gathered by the SROs and, thus, was readily available.

7/ By comparison, if MOSS were fully operational, the system would be reviewing trading activity in approximately 6,500 stocks on the major stock exchanges and NASDAQ and 274 options classes.

In February 1981, the Commission began the process of converting the computer programs of the pilot project to operate on the existing computer at the Commission's headquarters in Washington, D.C. This conversion activity was carried out concurrently with the procurement of the computer equipment contemplated by the Congressional workplan, which will be dedicated to the MOSS project. 8/ In order to exercise close control over the conversion process, the work was performed internally by Commission staff members with some limited advisory assistance from outside consultants. By early July, the Commission's staff had completed the reprogramming and testing of the computer programs and a fully operational version of the pilot system was operating on the Commission's existing computer equipment. Although a version of the pilot project continued to operate in a parallel mode, for testing purposes, at Monchik-Weber Systems Consulting, Inc. ("Monchik-Weber") in New York through the end of July, the transfer of the pilot operation to Washington was essentially complete by this time.

With the transfer of the pilot operation to Washington, it was necessary to begin receiving directly at Commission headquarters in Washington the cleared trade data that the MOSS pilot project had been processing in New York. This data, supplied by NSCC and OCC, is now collected from the clearing agencies in New York each day by messenger and included in a daily commercial courier delivery to the Commission's headquarters in Washington for processing the next day. 9/

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8/ See the discussion below regarding the procurement of the computer equipment. As noted in the First Report at 5, transferring the pilot project initially to its existing computer in Washington permitted the Commission to perform the conversion process concurrently with the procurement of the new equipment. This concurrence shortened considerably the time required to transfer the system to the Commission's headquarters in Washington. However, the ability to expand the system to include additional stocks and options and new surveillance algorithms will be limited until the new computer equipment is delivered.

9/ OCC transmits this information from its Chicago offices to its Manhattan offices on a daily basis over telecommunication lines.

It was also necessary to begin receiving directly in Washington on a daily basis the consolidated transaction tape produced by Monchik-Weber. This transaction tape includes both trade and quotation data for listed stocks and options and it represents a consolidation of the data available from the Consolidated Tape Association ("CTA"), the Options Price Reporting Authority ("OPRA"), and the Consolidated Quotation Service ("CQS"). <sup>10/</sup> A computer tape containing this consolidated data is included each day in the commercial courier delivery to Washington, D.C.

The Commission began receiving the clearing and consolidated transaction data in Washington when the operation of the pilot project in New York was terminated at the end of July. This successfully completed the conversion process for pilot project. Since August 1, the pilot version of the MOSS system has been operating solely at the Commission's headquarters in Washington, D.C.

## B. Hardware and Software Procurement

### 1. Hardware

As noted in the First Report, early in 1981 Commission staff members started the procurement process to acquire the computer equipment required for the MOSS project. A Request for Proposal ("RFP") for the acquisition of the equipment was issued in March. <sup>11/</sup> Following the closing date for submission of proposals on June 1, 1981, the staff evaluated seven proposals to supply the necessary equipment for the

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<sup>10/</sup> CTA includes price, volume, and time of trade report for all trades involving stocks listed on the New York Stock Exchange ("NYSE") and the American Stock Exchange ("Amex"), regardless of whether the trades are executed on those exchanges, on one of the regional exchanges, or in the over-the-counter market.

OPRA provides quotation data and price, volume, and time of trade report for all options listed on the Amex, the Chicago Board Options Exchange ("CBOE"), the Pacific Stock Exchange ("PSE") and the Philadelphia Stock Exchange ("Phlx").

CQS includes current bid and offer quotes from all marketplaces for stocks listed on the Amex and the NYSE.

<sup>11/</sup> First Report at 4.



project, and on August 28, 1981, the Commission awarded a contract. 12/ The Commission expects to take delivery of the equipment in early November and to move the MOSS pilot system from the Commission's existing computer to the new equipment in January. The transfer of the system to the new equipment will permit the further gradual expansion of the MOSS system to the full range of stocks and options contemplated in the Congressional work plan. 13/

The new computer equipment is substantially compatible with the Commission's existing computer equipment. Such differences as do exist between the two types of computers will not affect the computer programs developed in converting the MOSS project to the Commission's existing computer. Accordingly, no reprogramming of the MOSS system will be necessary in order to transfer the MOSS pilot project from the Commission's existing computer to the new equipment.

## 2. Software

The procurement of computer software related to the analytical sub-systems of the MOSS system presented a special problem for the Commission. The development of the analytical sub-systems has been an evolutionary process, and it is expected that the further development of these elements of MOSS will require continued adjustment in response to the staff's experience in automating market surveillance. Therefore, the Commission wished to retain as much flexibility as possible in acquiring programming services. However, the normal procurement process would have required a detailed description of the work to be performed under contract, which would have limited the Commission's flexibility. Also, the analytical sub-systems contain the actual algorithms to be employed to identify suspect trading activity, and publication in an RFP of a detailed description of the work to be performed on these sub-systems would necessarily have included a description of the surveillance algorithms. Knowledge of the specific algorithms employed by the system could permit someone to engage in violative trading activity without detection by MOSS.

Accordingly, after discussing alternatives with the office of Federal Procurement Policy in the Office of Management and Budget, the Commission issued an RFP on August 10, 1981, soliciting proposals to perform software analysis

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12/ The computer disk drives for the system were not included in the contract awarded by the Commission, but rather were purchased separately from the regular Government Services Administration supply list.

13/ Senate Report at 4-5, House Report at 4-5. See the discussion infra at 8-9.

and design and programming implementation on a time and materials basis. <sup>14/</sup> This approach provided the necessary flexibility and avoided publication of a detailed description of the work to be performed, thus protecting the confidentiality of the specific algorithms employed to detect violative trading activity. By the closing date for submission of proposals on September 10, 1981, the Commission had received thirty-three proposals. The Commission expects to complete review of the proposals and to award multiple contracts before the end of September. Specific tasks to be performed under the contracts will be defined with each contractor after the award. Thus the Commission will be able to limit those who have specific knowledge of the algorithms to Commission staff members, certain contractors, and, as warranted, members of the surveillance staffs of the various exchanges and the NASD.

The Commission also intends to issue an RFP to solicit proposals to supply the MOSS project with the consolidated transaction data currently being supplied by Monchik-Weber. This consolidated data was originally developed in conjunction with the development of the MOSS pilot project in New York, although the work was performed under a separate contract. With the transfer of the pilot project, however, the Commission believes it is appropriate to seek competitive proposals for the separate provision of the consolidated transaction data that the system requires. The Commission expects to award such a contract in 1982.

#### C. Installation of the New Computer Equipment

Because the Commission's existing computer facility does not have sufficient space for the new equipment being acquired, it was necessary to prepare a new site with adequate electric power, air conditioning, raised flooring, and security for installation of the equipment. However, the lease under which the Commission occupies its headquarters building recently expired and it is uncertain how long the Commission will remain in the building. To avoid making alterations to the current headquarters building that might be used only for a short period of time, the Commission has acquired the use of a portion of an existing computer room in a GSA building at another location in Washington. Although there will be some inconvenience and additional expense to the Commission caused by the remote location of the equipment, this approach will permit the installation of the equipment on schedule, without the possible wasteful expenditure of funds on temporary alterations to the current headquarters building. Upon the consolidation of the

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<sup>14/</sup> Preliminary notice of the RFP was published in the Commerce Business Daily, August 7, 1981, at 2.

Commission's Washington operations into a single headquarters facility, as contemplated by the budget authorization, 15/ the computer equipment for the MOSS project will be relocated to the new headquarters building.

D. Developments in the MOSS Pilot Project

Until the new computer equipment is installed and the pilot operation is transferred to it, the MOSS pilot will be operated on the Commission's existing computer. While the limitations of the existing computer equipment place constraints on MOSS development, some expansion of the system can occur and some development of the MOSS analytical sub-systems can take place. When the pilot system was transferred to Washington it was monitoring trading activity in approximately 670 stocks and 20 option classes on a daily basis. By late September there had been moderate expansion of these numbers, and the system was monitoring approximately 775 stocks and 75 option classes. The gradual growth in the number of stocks and options monitored by the system is expected to continue, barring unforeseen resource constraints caused by the limitations of the existing computer facility, through January when the system will be transferred to the new computer equipment.

Additionally, the retention period for trading information was extended to improve access to historical data. Clearing information currently is retained in the system for sixty days and price and volume data is retained indefinitely.

Some enhancement of the analytical sub-systems may begin before the new computer equipment arrives. A team composed of staff members from the Divisions of Enforcement and Market Regulation has reviewed the thirteen existing algorithms and has recommended some changes, particularly for those algorithms that monitor related stock and option trading. 16/ Upon completion of the software procurement process and the awarding of contracts, the Commission will begin to modify some of the existing algorithms to incorporate the improvements developed by the staff over the last six months. Some of these changes will enhance the staffs' ability to screen out, based on information available in the MOSS system, trading activity that, while unusual, nevertheless is unlikely to represent violative trading.

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15/ Senate Report at 3, House Report at 5-8.

16/ For a description of the thirteen algorithms, see First Report at 13-15.

With the installation of the new equipment in November, the Commission will proceed with further development and enhancements of the analytical programs of the MOSS pilot. Although the Commission's staff has initiated discussions with some SROs to acquire additional data as contemplated in the Congressional workplan, 17/ none of the enhancements and developments planned for the next six months will require any additional data from the SROs beyond what is currently being supplied to the Commission. Accordingly, these systems changes should not require any additional expense or effort on the part of the SROs. The planned changes include the following new algorithms or improvements to existing algorithms:

- a. Reformat Stock and Option Volume Concentration Reports - add information from Commission public filings and public news items to the existing reports and refine the associated algorithms.
- b. Trading on Non-Public Information - identify significant price or volume movements prior to the announcement of news related to an issuer or an issuer's industry.
- c. Refine Price and Volume Algorithms - augment the existing algorithms by providing for the analysis of historical price and volume behavior and incorporate additional information, such as stock volatility.
- d. Reformat Stock/Option Analysis Reports - change the existing reports to present additional related option position information.
- e. Marking the Close Analysis - identify those situations where over a period of time the last trade of the day resulted in a plus or minus tick for a stock or option.
- f. Block Trade/Front-Running Analysis - analyze the trading activity in a stock or its related options prior to the execution of a large block trade in the stock in order to identify trading on non-public information.

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17/ See the discussion infra at 10.

E. Obtaining Additional Trading Information from the SROs.

In authorizing the Commission to proceed with the development of the MOSS project through fiscal year 1983, Congress instructed the Commission to begin discussions with the SROs, in fiscal year 1981, regarding the receipt by the Commission for use in MOSS of certain additional information files maintained by the SROs. 18/ These information files are: 19/

1. NASD broker/dealer quotes; 20/
2. NASD end of day broker volume;
3. NASD broker/dealer quote drops;
4. Broker/dealer Symbol cross reference files;
5. Broker/dealer security relationship files;
6. Unmatched option trades;

The Commission's staff initiated discussions with the SROs regarding these files in September. However, in light of the recent initiative by the SROs to enhance and develop an effective inter-market surveillance capability of their own, the Commission will continue to defer actually receiving this additional information until a least the fourth quarter of fiscal year 1982 in order to provide the Commission with sufficient time to evaluate the development of the SRO initiative and the future course of the MOSS project. 21/ In the meantime, the MOSS project staff will hold preliminary technical discussions with the technical staffs at the SROs regarding file structures and data formats in preparation for the possible eventual inclusion of these information files in the MOSS system. These technical determinations are expected also to assist the Commission in its evaluation of the SROs' efforts to establish an effective inter-market surveillance program.

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18/ Senate Report at 4, House Report at 5.

19/ The Congressional authorization also instructed the Commission to obtain SRO inquiry and investigation files. In light of the SRO initiative to develop an SRO operated program for surveillance of inter-market trading activity, however, the Commission has deferred initiating discussions to obtain the inquiry and investigation files.

20/ In referring to "NASD" information we assume that Congress means information relating to NASDAQ trading activity.

21/ For a discussion of the SRO initiative, see pp. 17-18.

F. Receipt of Option Market Stock Trading Data.

As discussed in the First Report, in early 1981 the option exchanges began reporting to the Commission on a daily basis information relating to the underlying stock trading and order activity of option market makers. 22/ However, Commission staff members began to notice that the market maker stock trading and order information used in the stock option surveillance programs of the Amex and the CBOE and supplied to the Commission by both exchanges on a daily basis appeared to be inconsistent, inaccurate and incomplete. In response, Commission staff members conducted on-site inspections of the effectiveness of the stock/option surveillance programs of the Amex and the CBOE in February and through special audits of exchange, market maker, and clearing firm records a number of deficiencies in data completeness and accuracy were identified. Deficiency letters were issued to each of the exchanges in March. 23/

Since the inspections in February, both exchanges report that they have taken corrective actions to improve the accuracy and completeness of the information and that they have been conferring with each other with regard to further measures that could be taken to improve the quality of the information supplied by member firms. The Amex, for example, reports that on a daily basis the Amex staff visually scans the stock trade and order information reported to the exchange to assure that the information is complete and consistent. Additionally, the Amex reports that its staff performs a daily manual comparison of clearing reports for member firms that clear for market makers to assure that all trades for market makers have been reported. The CBOE reports that it has instituted a similar procedure for visually scanning the reported data to identify errors, which are discussed with the reporting firms. The exchanges have discussed with each other the possibility of establishing standardized collection and recording procedures for their member firms that clear stock trades for option market makers. This standardization would simplify the task of collecting the information for firms that clear stock trades for market makers from both exchanges.

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22/ First Report at 6.

23/ For a more complete discussion, see First Report at 22 - 23.

Commission staff members have noticed recently that the data on option market maker stock trading and order activity that the exchanges supply to the Commission daily appears to have fewer errors. However, a complete evaluation of the quality of the data used in the basic stock/option manipulation surveillance programs at these exchanges will require further special audits of exchange and clearing member records. These audits will be made as part of routine periodic inspections of the exchanges by the Commission.

### III. Benefits of the MOSS Project

In addition to the immediate benefits of the MOSS project to the Commission, the project has generated a number of beneficial reactions in the securities industry, the most important of which is the proposal by the SROs, discussed in detail in the next section of this report, to establish an SRO-operated program to provide surveillance of inter-market trading activity.

In response to the Commission's development of MOSS, the major self-regulatory organizations, in connection with the Securities Industry Association ("SIA"), formed a task force, the Intermarket Surveillance Group ("ISG"), to discuss methods by which the current gaps in the surveillance of inter-market trading activity could be closed. <sup>24/</sup> This group met on February 24, May 19, and July 13 to discuss these issues, and on August 14 the group submitted the proposal discussed in the next section. Other important surveillance initiatives resulting from the Commission's initiation of MOSS are the implementation by the NYSE of its own procedures to monitor "gap openings" by specialists in NYSE securities and the addition to the Amex's surveillance programs of an exception reporting capability for volume concentration analysis.

While it is apparent from these developments that the Commission's initiation of the MOSS project has served as an important incentive to the SRO community to improve its own surveillance capability, the Commission has also benefitted directly from the MOSS program both in the Commission's trade watch function and in its SRO inspection program.

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<sup>24/</sup> Participants in the task force include representatives from the Amex, CBOE, Cincinnati Stock Exchange ("CSE"), Midwest Stock Exchange ("MSE"), NASD, NYSE, Phlx, PSE, and SIA.

A. Trade Watch

The long established trade watch function at the Commission has, in the past, operated at a mostly rudimentary level due to its dependence on published information and the manual procedures used for gathering that information. The development of the MOSS project has begun to change that situation by providing access to more timely and complete trading information. Even though the pilot project was not designed to be an operational surveillance system but rather to test the system design of MOSS by limited monitoring of stock and option trading, the system is nevertheless identifying situations warranting inquiry by the staff of the trade watch unit.

As a matter of Commission policy, the trade watch staff works closely with surveillance units of the SROs, and trading situations identified by MOSS that appear to warrant further inquiry after initial review by the Commission's staff are discussed and coordinated with the surveillance staff of the exchange where the trading occurred. 25/ The experience of the last six months indicates that approximately twenty-five percent of the trading alerts generated by MOSS that are referred to an SRO represent trading activity that has not previously been investigated by the SRO. In the remaining seventy-five percent of the referrals, the SROs had already opened inquiries. The trading situations that have been referred to the SROs thus far relate to possible price manipulations and trading on non-public information.

In appropriate instances, the Commission will conduct its own inquiries and bring enforcement actions when the circumstances warrant it. Thus far the Commission has successfully completed legal action in one particularly egregious case of trading on non-public information detected by MOSS. 26/ The case brought by the Commission resulted in the disgorgement of more than \$45,000 in trading profits by the defendant. 27/

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25/ For a discussion of the Commission's policy on the use of MOSS, see First Report at 16.

26/ The Commission's inquiry was coordinated with the Amex, which also had detected the activity.

27/ Securities and Exchange Commission v. Howard L. Davidowitz (S.D.N.Y. 1981, Civil Action No. 81-4857).



## B. Inspections

As we explained in the First Report, the output from the MOSS pilot program has also been of benefit to the Commission's inspections staff in focusing attention on particular types of problems at an exchange or in permitting a much more detailed advance preparation for review of exchange programs prior to actually visiting an exchange. With this more detailed advance preparation, the inspections staff is more productive during its visits to an exchange and the inspections process is less disruptive to the activities of the exchange.

Since the First Report was submitted, the output from the MOSS pilot project has been used in three additional inspections. The first of these was a routine on-site inspection in May 1981 of the effectiveness and accuracy of the stock/option manipulation surveillance program at the Pacific Stock Exchange. Although at that time the MOSS pilot was monitoring trading activity in only a limited number of options and had been doing so for only a short period of time, the staff reviewed the MOSS stock/option manipulation reports related to options traded on PSE in preparation for the on-site inspection. The purpose of the review was to produce a list of suspicious trading situations identified by MOSS that could be compared during the inspection to inquiries initiated by the exchange's surveillance staff. Due to the limited nature of the pilot program, however, the technique proved to be of only limited usefulness at that time. Nevertheless, with the expansion of the number of options monitored by MOSS, the Commission's staff expects that this approach will enable it to identify in advance of an on-site inspection the files and records it needs to review and to make an independent evaluation of the adequacy of the surveillance procedures used by an exchange to identify suspicious trading activity.

The other two inspections that used output from the MOSS pilot program took place in June at the NYSE and the Amex. Using reports of thirty-one unusual "gap openings" and trade-to-trade price changes on selected trading days in the stocks assigned to specialists at these exchanges, the Commission's inspections staff reviewed the specialist performance evaluation system used by each exchange for the allocation

and reallocation of stocks to specialists. 28/ The inspections staff found that, although the NYSE does not use objective criteria for routine identification of specialist performance problems in contrast to the Amex, which does, both exchanges had taken action with respect to trading situations identified by MOSS. For three of the trading situations, this had resulted in disciplinary action against the assigned specialist and, in one case, the stock assigned to a specialist had been reallocated to another specialist. In the other situations, because of the advance preparation, the inspections staff was able to review with the surveillance staff of each exchange the handling of specific situations, thus providing the Commission's staff with an independent measure of the performance appraisal systems.

The inspection of the NYSE also served another important regulatory purpose. Prior to the inspection, the NYSE had submitted to the Commission for its review, pursuant to the requirements of Section 19 of the Securities Exchange Act of 1934, a proposed rule change regarding NYSE Rule 103A, which governs the reallocation of stocks assigned to specialists. 29/ Accordingly, a staff member of the Commission's Office of Self-Regulatory Oversight, which is responsible for exchange rule filings, accompanied the inspections team to the NYSE. The staff was able to discuss with the exchange staff how the rule would operate in the specific circumstances identified by MOSS. For the first time, therefore, the staff was able to review a proposed rule change under a broad range of actual trading situations.

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28/ The fact that MOSS identified a number of gap openings or price discontinuities does not necessarily mean that the assigned specialists had not fulfilled their obligations under exchange rules or the Securities Exchange Act of 1934. The MOSS surveillance algorithms for gap openings and price continuity are designed to flag trading activity for review by the Commission's staff to oversee the actions taken by SROs in such situations.

29/ 2 New York Stock Exchange Guide (CCH) ¶2103A.

IV. The Future of MOSS

A. Internal Review of MOSS

Upon taking office, Chairman Shad conducted a thorough review of the MOSS project, both with Commission staff members and with representatives of the SROs, and reassessed the cost of the MOSS project and the effect of the project on the system of self-regulation fashioned by Congress when it enacted the Securities Exchange Act in 1934. An intensive internal review of the MOSS project and the Commission's market surveillance responsibilities in general began in July, shortly after the successful completion of the transfer of the MOSS pilot project operation to the Commission's computer in Washington. Part of this review included discussions with senior staff members of the Commission concerning possible alternatives to the current MOSS project that might be feasible and the pros and cons of each alternative.

B. Discussions with the SROs

Following this internal assessment, the review was expanded to include discussions with the chief executive officers of the three largest exchanges participating in the MOSS pilot project. <sup>30/</sup> At the invitation of Chairman Shad, the presidents of the AMEX, CBOE, and NYSE and their senior staff members met with the Chairman and Commission staff members on August 3 in Washington, D.C. These discussions led to a request from Chairman Shad to the three exchanges to submit, on behalf of themselves and the other SROs, a program and timetable for the establishment of an effective inter-market surveillance program to be operated by the SROs. The proposal for such a program was to include, as a key element, provision for access by the Commission to the information processed and stored by the SROs in order to permit the Commission to fulfill its responsibility to oversee the effectiveness of the SRO market surveillance programs and its own direct enforcement responsibilities, thereby contributing to the broad statutory goal of maintaining fair and orderly markets.

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<sup>30/</sup> Robert J. Birnbaum, President, Amex; Charles J. Henry, President, CBOE; and John J. Phelan, Jr., President, NYSE.

C. The Joint SRO Initiative

The response from the exchanges was received by the Commission on August 18. <sup>31/</sup> The response, submitted after discussion with the other marketplace SROs, responded affirmatively to the request for a proposal for the establishment of an SRO program for surveillance of inter-market trading. <sup>32/</sup> Predicated upon the concept of sharing surveillance information (some of which is yet to be developed) among the SROs, the response sets forth a timetable for development and implementation that is to be coordinated through the Intermarket Surveillance Group. The plan also provides for a complete review by the ISG of the existing surveillance information and procedures currently used in each marketplace and the identification of the data and the procedures that need to be developed in order to establish an effective inter-market surveillance program. The plan notes that, although some information is currently exchanged among the Amex, CBOE, and NYSE, this information exchange must be expanded to include all SROs and the means and procedures of the exchange must be improved.

The plan also recognizes that an adequate transaction audit trail is a vital prerequisite to perfecting both intra-market and inter-market surveillance. Without the ability provided by a complete transaction audit trail to reconstruct the trading environment, effective market surveillance is a difficult and uncertain process that defies improvement through automation and that remains largely an art form. As the proposal notes:

"[I]t is recognized that an audit trail for equity securities is a prerequisite to perfecting both intra-market and inter-market surveillance. A number of exchanges presently have such audit trails, but lack of adequate audit trails for equities at the NYSE and Amex leaves a gap which must be addressed." <sup>33/</sup>

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<sup>31/</sup> Due to the press of time it was not possible for officers of each of the exchanges to sign the same letter, and, accordingly, each exchange submitted an identical letter. A copy of the letter submitted by the NYSE is included as Attachment A. ("NYSE letter").

<sup>32/</sup> The other SROs affirmed their agreement with the plan by separate letters.

<sup>33/</sup> NYSE letter at 3.

Accordingly, the NYSE, by separate letter, submitted a program and timetable for the phased implementation of a complete transaction audit trail for all equity securities listed on the NYSE. <sup>34/</sup> In order to provide immediate support for the surveillance of inter-market trading activity, the proposal calls for the implementation of a transaction audit trail for twenty equity securities on which options are traded by the end of 1981 and an audit trail for the remaining equity securities on which options are traded by the end of 1982. By the end of 1983, the audit trail will include all NYSE listed equity securities.

D. The Commission's Response

Chairman Shad responded to these initiatives on August 28, 1981, in a letter to the presidents of the three exchanges. <sup>35/</sup> In his response, Chairman Shad expressed the desire to cooperate fully in the implementation of the objectives of the Intermarket Surveillance Group and for Commission representatives to participate actively in that Group. Moreover because successful completion of these objectives would substantially enhance the SROs' surveillance capability, the Chairman's letter indicated that the Commission would not, at the present time, commit to enhancing substantially its current direct surveillance program. Accordingly, the letter stated that the Commission's forthcoming submission to the Office of Management and Budget, regarding requirements for fiscal year 1983, would not include a request for additional resources to enhance the Commission's direct surveillance capability beyond the pilot program.

Nevertheless, the Chairman's letter expressed a decision to proceed with development of the MOSS pilot project in fiscal year 1982 substantially as contemplated in the Congressional workplan while the Commission assessed the implementation and effectiveness of the program proposed by the SROs.

If the program for inter-market surveillance proposed by the SROs is to serve as a reasonable alternative to the MOSS project in providing the Commission with the ability to

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<sup>34/</sup> Letter to John S.R. Shad, Chairman of the Commission, from John J. Phelan, Jr., President, NYSE, dated August 14, 1981. A copy of the letter is included as Attachment B. ("Audit Trail letter").

<sup>35/</sup> A copy of the letter to John J. Phelan, Jr., President, NYSE, is included as Attachment C. ("Commission Response"). Separate letters were sent to the other marketplace SROs.

conduct effective and efficient oversight of the surveillance of the nation's securities markets performed by the SROs, the Commission and the SROs will need to define and develop, through close cooperation, a carefully tailored automated surveillance of inter-market trading activity that provides an informational basis for the establishment of a meaningful audit process. In his response to the SRO proposal, Chairman Shad emphasized the importance of the successful development of such a program:

"[The] pilot program will continue in the interim to operate and be improved, including in some instances by adding stocks and options. Experience with this pilot program will assist the Commission in the development of the requirements for an effective self-regulatory organization surveillance program. This will also provide the Commission with an important informational basis for establishing a meaningful audit process. Moreover, in the event that developing an effective intermarket self-regulatory surveillance system -- through which the Commission could satisfy its public responsibilities of overseeing the securities markets -- proves unfeasible, the pilot program would provide a nucleus for a more direct role in developing the informational predicate needed to ensure the integrity of these markets." 36/

E. The Effect on the Commission's Oversight and Enforcement Responsibilities.

The Commission anticipates that, if the inter-market surveillance initiative of the SROs is successfully implemented, the Commission would need to modify accordingly the manner in which its oversight and enforcement activities would be performed. However, the details of the necessary changes are contingent on the actual program developed by the SROs and are not clearly defined at this time. Concurrent with the implementation of the SRO project, Commission staff members will be working to define the Commission's requirement for access to information needed to support its oversight and enforcement activities.

For the Division of Market Regulation this effort will entail developing a program to audit the effectiveness of the SRO surveillance efforts. Obviously such a program will require full access to SRO informational files, but it is

unclear how much of the audit effort can be automated. It is currently anticipated, however, that the Commission will need to retain significant computer processing capability to provide the analytical assistance necessary to support an effective audit program.

Similarly, the Division of Enforcement must define its informational requirements and determine how those requirements will be met if the Commission adopts an alternative to the development of MOSS. The MOSS project was designed to serve as an important information data base for the Commission's enforcement staff, in addition to providing a market surveillance capability. Indeed, ready access to historical trading and clearing information, together with data contained in routine public filings made with the Commission, is a MOSS function vital to the enforcement staff, because it would save staff time and expense that is currently lost in manually collecting information to support enforcement actions. Whether and how that informational requirement can be satisfied through access to information files maintained by the SROs remains to be determined. The outcome of this evaluation may point to retaining some of the non-surveillance capability of MOSS in order to enhance the case development support provided to Division of Enforcement analysts.

By early January 1982, the NYSE should have implemented a prototype transaction audit trail for twenty equity securities upon which options are traded and development of the inter-market surveillance program envisioned in the SRO proposal should be sufficiently advanced to permit the Commission to assess its effectiveness in order to reach some further conclusions regarding the future development of MOSS. By that time the Commission's staff will have achieved some understanding of the requirements for a meaningful audit process and whether those requirements can be met by the SRO program, and the information requirements of the Division of Enforcement should be established.

#### E. Summary

The Commission believes that the SRO proposal for the establishment of a self-regulatory surveillance program for inter-market trading activity that would operate as an alternative to direct daily surveillance by MOSS represents an important opportunity to further the system of self-regulation fashioned by Congress in 1934. In its authorization for the development of the MOSS project, Congress found that:

"Despite the harmony between MOSS and the statutory pattern of self-regulation, concerns have been expressed that the proposed system would somehow duplicate or

supplement existing SRO surveillance capabilities. Concerns have also been voiced that MOSS would be unduly costly or burdensome to the securities industry." 37/

The successful implementation of the program proposed by the SROs would go far toward dispelling those concerns and the achievement of a complete transaction audit trail on the NYSE would represent the attainment of a goal long sought by the Commission. 38/ Moreover, such a program, operated by the SROs rather than by the Commission, would reduce the Commission's costs related to oversight of SRO efforts to maintain the integrity of the Nation's securities markets. Accordingly, the Commission intends to vigorously support the development of this alternative, while retaining the MOSS pilot program as the nucleus for a more direct role in developing the informational predicate necessary for ensuring the integrity of these markets should the SRO initiative prove infeasible.

V. Costs of MOSS Thus Far to the SROs and the Commission

A. Costs to the SROs

Since its inception the costs of the MOSS project to the SROs have been a concern not only to the SROs and Congress, but also to the Commission. The Commission's initial review of those costs during preparation of the First Report in March indicated that the costs of MOSS to the SROs were running at or below the levels projected by the Commission. 39/ In September of this year, the staff of the Commission again contacted all of the self-regulatory organizations affected by MOSS and asked them to provide to the Commission the total incremental costs they have incurred because of MOSS in the

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37/ Senate Report at 6, House Report at 3.

38/ See e.g., Report of the Special Study of Securities Markets of the Securities Exchange Commission, H.R. Doc. No. 95, Pt.2, 88th Cong., 1st Sess. 355-58 (1963).

39/ First Report at 26.



first year of MOSS operations (October 1, 1980 - September 30, 1981). Additionally, the staff asked the SROs to provide estimates of the cost of MOSS operations to their organizations for the ensuing six-month period. The figures reported to the Commission by the SROs are as follows:

	<u>Oct. 1980 - Sept. 1981</u> (actual)	<u>Oct. 1981 - Mar. 1982</u> (projected)
NYSE	- 0 -	- 0 -
Amex	4,225	1,900
CBOE	5,484 <u>40/</u>	- 0 - <u>40/</u>
PSE	18,580 <u>41/</u>	8,500
Phlx	19,874	14,225 <u>42/</u>
NSCC	1,800	900
OCC	<u>19,890</u>	<u>12,000</u>
Total	69,853	37,525

After examining these cost reports, the Commission continues to be satisfied that the costs of MOSS to the self-regulatory organizations are running at or below the levels that the Commission projected for the project at this stage of its development. We found from the review of the cost figures submitted to the Commission in March that the

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40/ CBOE costs since April are consolidated with OCC's costs.

41/ This item includes a one-time programming cost at the PSE to automate its processing of underlying stock trades and orders of option market makers. The PSE is effecting this change voluntarily to improve the efficiency of its regulatory program concerning stock/option manipulation.

42/ This item includes a one-time programming cost at the Phlx to automate its processing. See also First Report at 26, n. 47.

incremental costs of the MOSS project to the SROs and their subsidiary securities processing organizations and clearing corporations are a relatively small proportion of their total budgets. After reviewing the complete figures for fiscal year 1981, we are pleased to see that this relationship continues to hold. 43/ Moreover, as the figures in the table indicate, the costs of the MOSS project to the self-regulators are expected to remain essentially unchanged over the next six-month period. This is due in part to the fact that the MOSS development schedule has not been accelerated in light of the proposal by the SROs to establish an industry-operated surveillance program for inter-market trading activity. If that SRO initiative proves infeasible and development of the MOSS project is continued on the schedule contemplated in the workplan, there may be some additional expense to the SRO community in the second half of fiscal year 1982. As the First Report noted, however, it is not expected that these increases should be unreasonable, considering the overall size of the organizations with which we are dealing and the small increases that may be expected. Nevertheless, the Commission is sensitive to the effect of MOSS operation costs on the self-regulatory organizations and will endeavor to keep to a minimum the costs and inconvenience of MOSS to the SROs.

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43/ The costs of MOSS operations to the SROs for fiscal year 1980 as a percentage of annual operating budget are as follows:

	<u>Annual Budget 1980</u>	<u>MOSS Costs</u>
NYSE	\$128,946,000	- 0 -
Amex	39,269,000	.011%
CBOE	27,538,000	.012
PSE	22,843,000	.081
Phlx	10,358,000	.192
NSCC	30,020,000	.006
OCC	9,629,000	.206

B. Costs to the Commission

The cumulative costs to the Commission for the development and operation of MOSS pilot project for fiscal year 1981 are \$1,760,000. <sup>43/</sup> By far the largest portion of these costs is attributable to the procurement of the computer hardware necessary to transfer the pilot project from New York to the Commission's headquarters in Washington, D.C., and the computer software development required to enhance the trading surveillance algorithms and to incorporate into the system the information available through routine public filings made with the Commission. As illustrated by the fiscal year 1981 cost figures that appear in Attachment D and the projected expenses for the first six months of fiscal year 1982, the costs for operation of the MOSS pilot, in contrast to the one-time costs associated with start-up of the system, are relatively low. Moreover, by January 1982, the Commission expects that the details of the SRO initiative will be sufficiently defined to permit the Commission to reach a judgment on overall expenditures related to the MOSS project for fiscal year 1982. Finally, as discussed above, the Commission has not requested additional resources in its fiscal year 1983 submission to the Office of Management and Budget to enhance the direct surveillance capability of the system beyond the pilot program.

VI. Tasks to be Accomplished During Next Six-Month Period

Throughout the text of this report, we have discussed the tasks that the Commission's staff expects to accomplish with regard to the MOSS project over the next six months. Nevertheless, it might be useful to summarize those tasks.

Tasks to be completed during the next six-month reporting period (October 1981 - March 1982):

- . Installation of the new computer equipment and transfer of the MOSS pilot operation to the new equipment. (Estimated completion date - December 1981)

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<sup>43/</sup> A chart of MOSS project costs for fiscal year 1981 listed by major budget categories appears in Attachment D. The chart also includes a projection of MOSS operation costs for fiscal year 1982.

- . Gradual expansion of the number of stocks and options in the MOSS data base. (Estimated completion date - Ongoing).
- . Addition of surveillance algorithms to the MOSS data base. (Estimated completion date - Ongoing).
- . Addition to the MOSS data base of information from the routine public filings made with the Commission. (Estimated completion date - Ongoing).
- . Extension of the retention period for historical price and volume information in the MOSS data base. (Estimated completion date - January 1982).
- . Provide staff members of the Divisions of Enforcement and Market Regulation with access to the MOSS data base through computer terminals. (Estimated completion date - February 1982).
- . Discussion with the relevant SROs concerning the receipt by the Commission of existing SRO information relating to broker-dealer symbol cross reference and security relationship files. (Estimated completion date - Ongoing).
- . Discussions with the NASD concerning the receipt by the Commission of NASDAQ data. (Estimated completion date - Ongoing).
- . Discussions with the option exchanges concerning the receipt by the Commission of unmatched option trade information. (Estimated completion date - Ongoing).

All of these tasks and the estimated completion dates are consistent with the overall project implementation schedule established by the Congressional oversight committees.

As during the last six-month period, we do not expect to request from the SROs any additional information for MOSS during the next six months beyond what they are already providing. Accordingly, costs of the MOSS operation to the SROs should not increase for this reason during the next reporting period.

## VII. Conclusion

The Commission believes that there have been significant developments related to MOSS in the last six months. In particular, the MOSS pilot project was successfully transferred from New York to the Commission's headquarters in Washington, D.C., and the procurement of the necessary computer hardware and software was completed. But perhaps the most significant development related to MOSS was the submission of a proposal from the self-regulatory organizations for the establishment of an SRO-operated program for surveillance of inter-market trading activity and for the substantial enhancement of intra-market trading surveillance. The successful achievement of the objectives of the proposal through the joint cooperation of the Commission and the self-regulatory organizations would substantially further the system of self-regulation of the securities industry, a central tenet of the Securities Exchange Act of 1934.

We hope that this report has been responsive to the wishes of the Committee. The MOSS project, although an ambitious undertaking, is but part of the effort to preserve the integrity of the Nation's securities markets, which depends for its success upon the close cooperation of the Commission, the various SROs, the SIA, and the Congress. If the Committee has any questions regarding developments discussed in this report, please do not hesitate to contact the Commission's staff through Matthew Schneider, Director of Legislative Affairs, at (202) 272-2500.

ATTACHMENTS





**N.Y. STOCK  
EXCHANGE**

**Attachment A**

John J. Phelan, Jr.  
President and  
Chief Operating Officer

August 14, 1981

**CHAIRMAN'S OFFICE**

**RECEIVED**

**AUG 18 1981**

**SEC. & EXCH. COMM.**

Mr. John S. R. Shad  
Chairman  
Securities and Exchange Commission  
500 North Capital Street, N. W.  
Washington, D.C. 20549

Dear Chairman Shad:

You have requested the self-regulatory organizations to outline for you their program to more effectively deal with the surveillance of intermarket trading activity in today's equity and options trading environment. You have asked that this outline be as specific as possible and that it include a time schedule indicating the important milestones for implementation of such program. You have further emphasized the need for the SROs to proceed in this effort on an accelerated basis.

As you know, representatives from each of the exchanges and the NASD have for the past several months been meeting on a regular basis to develop a more effective inter-market surveillance program. This effort has focused on:

- (1) the exchange of presently available data;
- (2) the identification of data requirements not presently available and plans for the development and exchange of such data;
- (3) the definition of basic analytical procedures designed to insure that inter-market surveillance inquiries of various kinds can be performed;
- (4) the development of organization interfaces between the SROs, as well as between the SROs and the SEC, to facilitate communications and clarify responsibilities for inter-market surveillance inquiries.



The proposed Project Plan for achieving these objectives, which the undersigned have agreed upon, includes the major tasks to be completed by the end of the year. These tasks are identified on the attached Exhibit 1, together with target dates for completion. Also included in this Plan are proposed dates for providing status reports to the Commission so that it can monitor the program's progress.

#### Organizational Effort and Achievements to Date

The SROs established an Inter-Market Surveillance Group in January of this year for the purpose of coordinating the overall effort for exchanging market data and enhancing inter-market surveillance. The Group first identified the kinds of surveillance activities which would require the exchange of data by one market center with another. This study was followed by an effort to identify all of the types of market data that were presently being exchanged among SROs, either on a routine basis or on a "request" basis as the need should arise in connection with a specific inquiry.

Next, the Inter-Market Surveillance Group focused on the additional types of market data which should be exchanged among SROs to assure more effective surveillance. It identified data which is presently being collected and could, therefore, be exchanged with a minimum of cost and additional effort, and also data which is not now being collected but which might help in the future to further refine and improve surveillance techniques.

The Group determined that the most critical information needed for effective inter-market includes transaction and quotation data and identification of the participants in each day's trading. This data is presently compiled for both equities and options and procedures for exchanging this data among SROs could be worked out within a very short time-frame.

Each of the SROs agreed to the release of the data relating to securities traded in their markets to each of the other SROs having a need for such data in connection with regulatory activities. The Inter-Market Surveillance Group explored the possible legal issues which could arise in connection with the exchange of confidential data among SROs but found no insurmountable problems.

Indeed, it was determined that a considerable amount of this data was already being exchanged among several of the SROs and that the initial effort of the Inter-Market Surveillance Group should be to improve the means of transmitting and receiving such data and assuring that those SROs not previously participating in the interchange of the data be included.

Major progress has been made in achieving these objectives. As of the date of this letter, NYSE, Amex and CBOE are all exchanging this data in machine readable form.\* In addition, arrangements for the exchange of this type of data among all remaining SROs are expected to be completed within the next few weeks.

The Inter-Market Surveillance Group will continue to work on methods for improving the timeliness and efficiency for exchanging data among SROs.

#### Future Developments

Surveillance of the securities markets is a dynamic and constantly changing process. New sources of data become available as trading procedures change and automation is substituted for manual operations. The Inter-Market Surveillance Group will continue to explore new sources of data as they become available and determine how the exchange of such data among SROs may enhance the inter-market surveillance capability of each market center.

In this connection, it is recognized that an audit trail for equity securities is a prerequisite to perfecting both intra-market and inter-market surveillance. A number of exchanges presently have such audit trails, but the lack of adequate audit trails for equities at the NYSE and Amex leaves a gap which must be addressed. The development of an equity audit trail that can function effectively in high volume markets is an extensive and complex task which will require a cooperative effort between these two exchanges as well as with the broker-dealer community. The efforts devoted to this task by the NYSE and Amex will be described in separate communications to the Commission, the first of which we understand will be forwarded concurrently with this letter.

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\* It should be noted that in many instances data from more than one SRO are processed through existing common facilities and that, therefore, the exchange of data involves nothing more than consent by the respective SROs to the release of such data by the common processor and arrangements for the other SROs to receive it. Thus, for example, SIAC, the CTA processor, consolidates trading and quotation information from all market centers covering NYSE and AMEX traded equities. Similarly OCC generates clearing data for all options exchanges, and NSCC captures the bulk of the clearing data for most equities. As a result, the vast bulk of pertinent market data is presently concentrated in a very few processing facilities and quite readily available.

The SROs also recognized that effective surveillance depends not only upon the exchange of pertinent market data but also upon the integration and proper analysis of such data in relation to specific factual situations. The Inter-Market Surveillance Group therefore plans to identify and document the basic inter-market surveillance procedures which should be in place at each SRO and to ensure proper coordination of inter-market surveillance responsibilities of the respective SROs based upon the shared data. Of course each SRO will continue to develop and operate its own surveillance facilities and make all determinations concerning the specific means of carrying out its surveillance responsibilities. The procedures to be focused on jointly by the SROs will be solely for the purpose of assuring that there is appropriate coordination of inter-market surveillance matters and that no gaps are allowed to develop. As indicated in the attached Exhibit, each of the SROs will separately furnish to the SEC by the end of this year a description of how they plan to integrate the shared data into their respective regulatory operations and to enhance their inter-market surveillance capabilities. The Commission, in its oversight capacity will, of course, be reviewing the surveillance capability and procedures of individual SROs and helping to point out where deficiencies exist or improvement is necessary.

The data already being exchanged coupled with the immediate plans for expanding such interchange of information will presently enable all SROs which trade options and related underlying stocks to carry out an effective inter-market surveillance program with respect to such options and related underlying stocks. The evolution of the ITS system for inter-market stock trading has been accompanied by significant efforts in monitoring inter-market trading of ITS equities. The advent of upstairs trading in Rule 19c-3 securities clearly suggests the need for greater emphasis on inter-market surveillance of equities trading in that area.

The undersigned SROs are committed to achieving a sound program for inter-market surveillance of all securities trading and we believe that the program already made in the area of exchanging data demonstrates a determination to carry out that commitment.

#### SRO Interface with the Commission

We also understand that the Commission, in evaluating its own need for information to carry out its regulatory and oversight responsibilities, is interested in ascertaining the extent to which the SROs can be of assistance in providing pertinent data, and thereby obviate the possibility of creating duplicate facilities at the Commission level.

Each of the undersigned SROs is prepared to make its surveillance information available to the Commission and we believe that the data base from which this information is derived is

adequate for the Commission's purposes. Moreover, we intend to establish clearly defined lines of communication for use by the staff of the Commission to expedite its obtaining the necessary data from the SROs. As indicated on the attached Exhibit, we expect to be in a position to furnish an appropriate matrix outlining these lines of communication by the end of October of this year.

In this connection, we have reviewed the thirteen surveillance algorithms described by the Commission in its first six-month report to the Congress regarding implementation of MOSS. In most instances the affected SROs are already conducting this same type of surveillance as to their individual markets and could, therefore, provide the data jointly to the Commission without much difficulty.

We recognize that the staff of the Commission has identified other areas in which it believes surveillance information will be required, and we would be pleased to work with the staff to ensure that the existing SRO data sources are effectively available to meet the Commission's needs for information. We believe this can be accomplished in such a way that the Commission will have the capability to fulfill its oversight role and also to obtain needed information promptly on a case-by-case basis in those areas where the Commission has direct regulatory responsibility.

#### SUMMARY

The undersigned SROs believe that the steps which have already been taken to exchange data among market centers and the additional plans outlined in the attached Exhibit will enable all market centers to carry out effective inter-market surveillance, and we are committed to seeing that these plans are implemented. Moreover, we believe that the SROs are in a position to provide the Commission with the necessary market data it needs to carry out its responsibilities and that it would therefore be unnecessary for the Commission to embark on a major program for duplication of existing surveillance facilities and capabilities.

In the interest of responding in a timely fashion to your request, only the Amex, CBOE and NYSE are signatories to this letter. However, the views expressed herein have been discussed with the other SROs, and it is expected that each of them will forward to you in the next few days a statement of their respective positions on the subject we have covered.

If further clarification is desired with respect to any of the matters covered in this letter please let us know.

Sincerely,

American Stock Exchange, Inc.

by \_\_\_\_\_  
(Title)

Chicago Board Options Exchange, Inc.

by \_\_\_\_\_  
(Title)

New York Stock Exchange, Inc.

by *Wall Pittet*  
(Title) Executive Vice President

INTERMARKET SURVEILLANCE GROUP

PROJECT PLAN

DATE SCHEDULED  
FOR COMPLETION OF  
DELIVERABLE

NO.

TASK DESCRIPTION

<u>NO.</u>	<u>TASK DESCRIPTION</u>	<u>DATE SCHEDULED FOR COMPLETION OF DELIVERABLE</u>
1.	Finalize definition of market information and data sharing requirement and procedures necessary to support an effective inter-market surveillance program - Equity - Equity - Equity - Options - Options - Options	8/31/81
2.	Determine Action Plan for development of market information which is not presently available on a timely basis [equity audit trail]	8/31/81
3.	Finalize organizational interface and communication procedures between SRO's	8/31/81
4.	Begin data sharing of existing information between AMEX, CBOE, NYSE	Completed
5.	Begin data sharing of existing information between BSE, CSE, MSE, NASD, PHLX, PSE	8/31/81
6.	Complete enhancements to data sharing communication media, report formats and procedures	10/30/81
7.	Define basic intermarket surveillance programs to be in place at each SRO	10/30/81

DATE SCHEDULED  
FOR COMPLETION OF  
DELIVERABLE

TASK DESCRIPTION

NO.

8.	Development by each SRO of analytical programs to support intermarket surveillance inquiries	On-Going
9.	Determine organizational interface and communications media and procedures between SRO's and SEC	Start 8/81 Complete 10/30/81
10.	Status Report to Intermarket Surveillance Group on action plan for development of market information which is not presently available (Task 2)	10/30/81
11.	Status Report by Intermarket Surveillance Group to SEC	11/15/81
12.	Status Report by each SRO to Intermarket Surveillance Group and to SEC with respect to development of analytical program to support intermarket inquiries	12/31/81
13.	Review of intermarket trading patterns and "kick-out" situations; review of specific intermarket surveillance inquiries by Intermarket Surveillance Group	10/30/81 and Quarterly Thereafter
14.	Continued work on additional tasks identified by the Intermarket Surveillance Group	On-Going

August 14, 1981



**N.Y. STOCK  
EXCHANGE**

**Attachment B**

John J. Phelan, Jr.  
President and  
Chief Operating Officer

August 14, 1981

Mr. John S. R. Shad  
Chairman  
Securities and Exchange Commission  
500 North Capital Street, N. W.  
Washington, D. C. 20549

Dear Mr. Shad:

At our meeting of August 3, you asked the New York Stock Exchange to provide you with an updated action plan and time schedule for the development of NYSE's equities audit trail.

I am pleased to submit the attached NYSE Audit Trail Project Plan, which describes the key tasks, deliverables and completion dates we have determined for this program.

In summary, this project plan envisions the completion of a pilot audit trail on twenty NYSE listed stocks on which options are currently traded by December 1981 and targets an across the board audit trail for NYSE listed equities by year end 1983.

As you know, a significant effort has taken place over the past eighteen months to define alternative solutions to the development of NYSE's equity audit trail.

The most comprehensive summary of the problem and the alternatives for its solution are described in a report by Coopers & Lybrand dated September 30, 1980, which was commissioned by the NYSE last year.

I am enclosing a copy of that report for your review.

Since the issuance of the Coopers & Lybrand report, the Exchange has been examining in detail the alternatives which Coopers and others have identified. That effort has given us the confidence to commit to you the results and time schedules in the attached project plan.



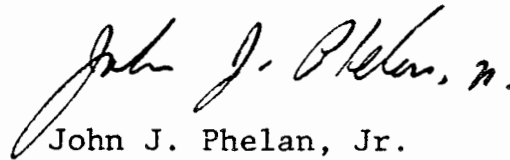
August 14, 1981

Page 2.

The NYSE is committed to the development of an effective audit trail in order to continue to meet its self-regulatory responsibilities.

I trust that the attached plan responds to your request and I look forward to working with you and the Commission on this program in the months ahead.

Very truly yours,

A handwritten signature in cursive script that reads "John J. Phelan, Jr." The signature is written in dark ink and is positioned above the typed name.

John J. Phelan, Jr.

Encl.

NEW YORK STOCK EXCHANGE

AUDIT TRAIL PROJECT PLAN

<u>TASK NO.</u>	<u>TASK DESCRIPTION</u>	<u>DATE SCHEDULED FOR COMPLETION OF DELIVERABLE</u>
1.	Define audit trail pilot characteristics - (point of sale data capture, systems data capture, participant stocks, specialists)	September 15, 1981
2.	Review Audit Trail Program objectives with Advanced Planning Committee; Review Audit Trail Pilot with Advanced Planning and Market Performance Committees and Pilot participants	August/October 1981
3.	Complete Rule proposal for capturing broker identification and time of trade	September/October 1981
4.	Develop audit trail report input and formats	September/October 1981
5.	Commence Pilot	November 1, 1981
6.	Evaluate results	December 1981
7.	Status report to SEC	December 1981
8.	Develop action plan for expansion of audit trail pilot to all option stocks during 1982 and eventually to all NYSE listed stocks	February 1982





OFFICE OF  
THE CHAIRMAN

## Attachment C

### SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

August 28, 1981

Mr. John J. Phelan, Jr.  
President & Chief Operating Officer  
New York Stock Exchange, Inc.  
Eleven Wall Street  
New York, New York 10005

Dear John:

Your prompt response to my request that the self-regulatory organizations outline an accelerated program to enhance surveillance of intermarket trading activity is appreciated. Your letter sets forth, for the remainder of this calendar year, a time schedule for completing specific tasks in carrying out the following programs:

- The Intermarket Surveillance Group will continue to work towards improving the timeliness and efficiency for exchanging data among the self-regulatory organizations, and will report to the Commission on these efforts.
- The self-regulatory organizations are committed to having an effective audit trail for equity securities.
- The Intermarket Surveillance Group will identify and document the basic intermarket surveillance procedures which should be in place at each self-regulatory organization, and will ensure proper coordination of intermarket surveillance responsibilities based upon shared data.
- Each self-regulatory organization will furnish for the Commission's review, by year's end, a description of its plan to integrate shared data into its intermarket surveillance capabilities and to enhance its intermarket surveillance capabilities.
- Each self-regulatory organization will make its surveillance information available to the Commission, and will establish clearly defined lines of communication so that the Commission's staff might readily obtain necessary data.

Further, by separate letter, the New York Stock Exchange represented that it will initiate a phased implementation of an effective equities audit trail, covering twenty options stocks by year's end, the remaining options stocks during 1982, and the remaining equity securities during 1983.

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Your response evinces a serious commitment to fulfilling intermarket self-regulatory surveillance responsibilities. An effective program of this type -- to which the Commission would have access, as well as an audit capability -- would, in turn, allow the Commission to satisfy its market oversight and enforcement responsibilities, without developing a costly and largely duplicative direct surveillance system.

As you are aware, the Commission has expended considerable efforts towards establishing a Market Oversight and Surveillance System (MOSS) which would allow it to fulfill its mandate to ensure the integrity of the securities markets. Significantly, at this stage of the program's development, the Commission retains the option of establishing either a direct surveillance capability, or a system primarily based on access to, and audit of, an effective self-regulatory surveillance program.

To date, the Commission's pilot MOSS program has presumed that the Commission will need to directly oversee such market activities. As a result of your constructive response, however, the Commission's staff will cooperate fully in the implementation of the objectives of the Intermarket Surveillance Group. Because successful completion of these objectives generally would cause any direct Commission surveillance capability to be duplicative, the Commission will not, at the present time, commit to enhancing substantially its current direct surveillance program. Accordingly, our forthcoming submission to the Office of Management and Budget, regarding our fiscal year 1983 requirements, will not include additional resources to enhance the direct surveillance capability beyond the pilot program.

This pilot program will continue in the interim to operate and be improved, including in some instances by adding stocks and options. Experience with this pilot program will assist the Commission in the development of the requirements for an effective self-regulatory organization surveillance program. This will also provide the Commission with an important informational basis for establishing a meaningful audit process. Moreover, in the event that developing an effective intermarket self-regulatory surveillance system -- through which the Commission could satisfy its public responsibilities of overseeing the securities markets -- proves unfeasible, the pilot program would provide a nucleus for a more direct role in developing the informational predicate needed to ensure the integrity of these markets.

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Donald Kittell of the Intermarket Surveillance Group should contact Douglas Scarff, Director of the Commission's Division of Market Regulation, to arrange for the Commission's participation in the Group. We look forward to receiving the scheduled status reports and will actively monitor the Group's progress.

Sincerely,



John S.R. Shad



## Attachment D

### MOSS PROJECT EXPENSES FY 1981- 1982

	October - September 1981 *	October - September 1982
<u>One-time Costs</u>		
Computing Equipment	600,000	330,000
Software Development Implementation, Training, Documentation, Project Expenses	860,000	820,000
 <u>Operating Costs</u>		
Personnel	**	180,000
Non-Personnel		
Outside Services		
Consolidated Ticker Service and Other Services	129,000	240,000
MOSS Pilot in New York (Oct-Aug)	171,000	----
Total	1,760,000	1,570,000

\* Amounts are estimated pending end of fiscal year September 30, 1981.

\*\* No new positions were created in FY 1981 for MOSS, however 8 positions were reprogrammed for MOSS purposes.