

February 26, 1988

Mr. Richard G. Ketchum  
Director  
Division of Market Regulation  
Securities and Exchange Commission  
450 Fifth Street, N.W.  
Washington, D.C. 20549

Dear Mr. Ketchum:

This is in response to your letter of February 12, 1988, in which you ask the Exchange to address a number of items identified in the Staff Report, The October 1987 Market Break. Although we have attempted to provide detailed information in response to your questions wherever possible, because of your time constraints, we are not in a position to provide you with a complete response to every question at this time. We also note that many of the initiatives discussed herein must be presented to and approved by various Exchange Committees and our Board before they may be implemented. We will, of course, report back to your staff as our work progresses.

Before discussing the specific items listed in the attachment to your letter, I would like to address some of the general matters raised in the letter itself. One in particular is the need for better coordination and more comprehensive sharing of information among the self-regulatory organizations in the various marketplaces. The conclusion that this need exists, and that such coordination was not operating effectively during the market break, is a common thread that runs through the many studies prepared since the break. We agree that it is essential that beginning immediately, the SROs for the stock, options and futures markets cooperate closely in developing contingency plans to ensure the complete exchange of all information which may affect trading in related markets. Although such plans should focus on ways to improve coordination during particularly serious market events, they should also serve to establish guidelines for the types of information that should be shared routinely. Of primary import is the exchange of information regarding the overall conditions in each marketplace, the financial condition of firms which might be facing problems in continuing to effectively carry on their business, regulatory actions taken by each SRO (e.g., the implementation of "circuit breakers"), and the imposition and status of trading halts and delayed openings. Ready access to accurate and timely information of this type will greatly assist each SRO in determining how best to respond to unusual market situations, and will help ensure that any actions taken will be based on a consideration of conditions across related markets and the overall effects such actions will have on those markets.

We believe that the SEC and CFTC should take the lead in structuring and implementing intermarket coordination. Because these issues cut across markets and industries, this is an area where actual implementation cannot be achieved by less than all of the relevant parties. We have recently received a letter from Representatives Dingell, Markey, Lent and Rinaldo requesting our cooperation in efforts of the Commission, CFTC and Federal Reserve to develop and implement a contingency plan, and we will of course cooperate with these efforts in every way possible.

Indeed, a first meeting of SROs was held this week at the NYSE to consider various operational issues.

You also request that we provide comments on the Division's recommendations in Chapter Three, subsection E of the Report relating to market basket trading, derivative product leverage, price limits, short sale restrictions and enhanced reporting requirements. We expect to furnish you detailed expressions of our views on each of these issues in the near future. The break and subsequent volatility in the market have prompted us to refocus our attention on the question of whether protective measures against volatility-related risk, such as margin, should be comparable for related products in both securities and commodities marketplaces. It has also become clearer in recent months that intermarket regulatory differences can lead to disequilibrium and market vulnerability. We therefore believe as a general matter that it will be essential to develop a workable means of regulating intermarket issues. It is critical that each of the issues raised in Chapter Three be evaluated in light of these principles.

Finally, you should be aware of several initiatives in market surveillance automation at the Amex which have been or will soon be implemented, and which will improve our ability to monitor our market and use market data effectively.

The Amex began in 1986 a broad effort to upgrade surveillance technology. These efforts run the spectrum from on-line, intraday market monitoring to post trade tools for investigations. In the last year, the Amex has implemented:

- A new StockWatch system to monitor trade-by-trade activity for comparison versus historic trading patterns.
- An Amex Trade Information Center (ATIC) for more efficient data gathering for ad hoc investigations.
- A NewsAlert system which uses voice synthesis to notify market operations personnel of listed company announcements which may require trading halts.
- A DowScan system which reads all the Dow stories and captures those that are related to Amex listed equity options for later reference by surveillance analysts.
- A new capability to electronically monitor trading for Rule 193 ("Chinese Wall") violations by firms carrying on specialist activities.
- Systems to automatically monitor option trading for front running, mini-manipulation and pegging and capping.

The development program will continue during 1988 and 1989 to provide market operations and surveillance personnel with the latest technical support available. These efforts include:

- An expert system which uses artificial intelligence software to analyze potential insider trading and market manipulation cases and estimate the likelihood that the case will eventually result in charges. This will allow surveillance analysts to handle case loads more accurately and productively.
- An upgrade of ATIC software and hardware to include a relational database and network access to Intermarket Surveillance Group files. This will reduce the amount of time required to build up case information during investigations.
- An OptionWatch system to duplicate for options the services provided by StockWatch for equities.

The remainder of this letter will focus on the items set forth in the attachment to your letter of February 12, 1987. For purposes of clarity, we have ordered our responses to coincide with the order in which your questions were presented.

### Equities

#### Specialist Performance

- Examine individual equity specialist performance for the period of the market break.
- Review specialist pricing, timing, and proprietary activity during gap openings, delayed openings, and trading halts.
- Review specialist proprietary activity during periods of extreme price volatility.
- Explore why a large number of Amex stocks remained closed for extended periods of time.
- Bring disciplinary actions or reallocation proceedings to remedy poor specialist performance during the market break.

Before responding to these individual questions, we believe it is appropriate to register our disagreement with many of the conclusions or implications regarding specialist performance on the Amex during the market break contained in Chapter Four of the Report. In some cases, these conclusions appear to be drawn from a limited sample of issues that were not representative of the Amex market as a whole. In other cases, we believe the conclusions were the result of incomplete analyses which did not take into consideration factors which are critical in evaluating market performance, such as: orders overhanging the market, orders in the crowd, and the condition of the limit order book. Further, shares outstanding, public float, and most

importantly, trading characteristics (e.g. volume, continuity, depth), also significantly determine liquidity in the issue. We believe it is essential to consider these and other factors fully before critiquing the performance in any one issue, and before reaching general conclusions about the overall performance of the Amex marketplace.

We expect to make a detailed presentation on specialist performance to the Exchange Board at its March 10th meeting, after which we will communicate our findings to you.

The Exchange has looked at trading in every security for the period of the market break - our inquiry has not been limited to the issues cited in the Report or to any other sampling. We believe that the aggregate data tells a positive story: the Amex market as a whole performed well. That is not to say that there were not individual situations where performance was substandard or could have been improved. These individual situations are now in the performance review process. The Sub-Committee to date has been asked to review seventy securities involving sixteen specialist units. Four additional units will be reviewed shortly. It is expected that either disciplinary action or reallocation will result from some number of these situations, and we will so inform the staff.

The Equity Analysis Department of the Trading Analysis Division monitors and reviews all trading activity of all equity specialist units. This review assesses the extent to which the specialist has provided market liquidity with reasonable continuity and depth and has traded in a fair and orderly manner based on supply and demand under prevailing market conditions. Instances of potentially inadequate performance are initially referred to a Sub-Committee of the Exchange's Performance Committee, which meets as frequently as necessary for this purpose. After Sub-Committee review of the performance in question, it may refer the matter further to the full Performance Committee, which, following a due process hearing, can take action, including reallocation, prohibition from receiving new allocations for a period of time, censure or admonishment. The Performance Committee may also refer a matter to the Compliance Division for action. Since 1981 six securities have been reallocated as a result of Performance Committee recommendation, with three in the past year. Our performance record, we believe, is more aggressive than that of any other exchange.

In accordance with the automated and manual procedures set forth in the Amex surveillance manual, the Exchange began its analysis of the October break by reviewing Automated Continuity and Depth Exception Reports and Daily Transaction Journals for all issues to determine, if the performance had met the standards expected of specialists even during these unprecedented market conditions. Market making activity for the period of October 16-26, 1987 could not be measured against any established performance criteria pertaining to reasonable levels of continuity, depth and participation. Instead, these levels needed to be modified to more closely reflect the unique volume and volatility of the period.

An important part of the review consisted of analyzing specialist participation rates. The following schedule indicates the specialist participation rate (in percentage of total volume) for the October 16 through 26 period:

<u>Date</u>	<u>Purchases</u>	<u>Sales</u>
10/16	19.4	14.3
10/19	24.5	17.9
10/20	23.8	21.2
10/21	16.4	25.0
10/22	17.5	18.1
10/23	17.3	15.7
10/26	17.7	13.7

As these figures indicate, on October 19 and 20, the most volatile days, the average of all specialist purchases on the Exchange was 24.5% and 23.8% of total volume, respectively, as compared to an average of 12.7% for the entire preceding month, demonstrating that, from the perspective of the amount of specialist proprietary buying or selling, specialists fulfilled their affirmative obligations in the absence of public orders. As the public interest reversed on October 21, specialists were required to supply stock, selling 25.0% of total volume, often at a substantial loss from inventoried positions. Although the average spread for all stocks during October widened to almost 3/8 points, as compared to 1/4 point in September, 91.2% of all transactions on the Amex occurred at variations of 1/4 point or less, further evidencing the specialists' efforts to minimize trade-to-trade disparities.

All trading halts, delayed openings and gap openings which occurred during the market break are being reviewed by the Trading Analysis Division staff in accordance with existing surveillance procedures. It should be kept in mind, however, that trading halts and gap openings should not necessarily be construed as a weakness on the part of a specialist or specialist unit, but may be the mechanism which enables the dissemination to the investing community of significant imbalances between supply and demand. The indication process which accompanies a halt or opening at a gap price allows investors an opportunity to re-evaluate their investment decisions, and permits the specialist to determine a "fair price" based on orders in the marketplace prior to the resumption of trading.

Our review indicates that some stocks remained closed because specialists opened their most active issues first, for the public benefit. In view of the unprecedented market conditions, the dissemination of quotations and indications on the floor and to the public was stressed when anticipated opening prices differed significantly from the last sale. In some instances corporate news developments added to the length of halts to allow for dissemination of news.

For the majority of delayed openings and halts in trading on the Amex during the period in question, the Exchange has identified no violations with respect to Amex rules or performance standards relating to specialist performance. For the most part, these stoppages were based on and supported by market conditions. However, we have identified some instances of delays or

halts which are not explainable based on market conditions, or where required procedures were not followed, and those instances are being pursued by the Performance Committee.

In terms of improving the administration of trading halts, we are considering a requirement that all stoppages and resumptions of trading and gap openings beyond specified limits be approved by an Exchange Official or Floor Governor. Currently, only the approval of a Floor Official, and, in some instances, a Floor Governor, is required in such situations. In addition, the Exchange is currently considering a mandatory requirement that all specialists prepare a form indicating the pre-halt condition of the specialist's book and any orders represented in the trading crowd prior to and subsequent to any halt in trading. This form would be submitted for the Floor Official's review prior to any stoppage or resumption of trading and for gap openings beyond specified limits so that a speedy analysis could be made of specialist pricing, timing and proprietary trading activity. It could subsequently be used by Exchange staff for surveillance purposes. Currently, the use of such forms by specialists is optional.

### Capital Requirements

- Review minimum capital requirements for specialists.

We have thoroughly reviewed the current capital requirements for specialists under Amex Rule 171. Rule 171 imposes on specialists minimum standards of cash or net liquid assets to ensure that specialists have capital sufficient to carry out their affirmative obligations. Current capital requirements -- the greater of \$100,000 or enough to carry 20 units (generally 2,000 shares or 20 option contracts) of each security -- are far below the actual financial commitments of our specialists to their assigned books.

While the amount of capital used by specialists in carrying positions may vary greatly from day to day and is inextricably tied to changes in the supply and demand for securities, we believe that minimum capital requirements could reflect more closely than does our current rule the normal level of capital used. We believe an increase in both the minimum dollar requirement and the number of units required under Rule 171 may be in order. We are in the process of detailed analytical work on a proposal to our Board to increase specialist capital requirements. Such increases could more accurately reflect the adequacy of specialists' financial resources and emphasize their obligations to the marketplace. Of course, the Exchange's early warning level of 120% of minimum requirements would apply over and above the increased minimum standards.

- Review present systems of specialist capital surveillance to determine if increased monitoring is necessary.

Based on a review of our system of specialist capital surveillance, we conclude that several changes should be made in routine surveillance procedures as well as in monitoring during periods of market turbulence.

Current routine surveillance procedures include annual financial examination, daily review of the positions and financial condition of each introducing specialist on the day after trade date, monthly review of the report of financial condition filed by all specialists, and review

of FOCUS reports filed by each specialist on a periodic basis. During periods of market turbulence or when a specialist is experiencing financial or operational stress, we employ additional procedures which involve frequent telephone contact with specialists, their clearing firms and other SROs to assess financial condition, and daily evaluation of specialist positions and capital.

While the Exchange's long term goal is to obtain automated intra-day information on specialist condition, data to accomplish that goal will not be available until systems permitting intra-day comparisons are developed - still several years away. For the moment, we are intensifying surveillance through the following action:

- (i) require firms clearing specialist accounts to provide, on a daily basis, standardized account information for specialists and traders. For dual members this would include account statements, or a summary thereof, for trading activity on other exchanges where they are members. Standardizing the information received and obtaining it for other than Amex positions will eliminate reporting gaps which currently impede overall evaluation of specialist financial condition;
- (ii) require daily information from self-clearing specialists who now are subject to monthly reporting. Since most of these specialists are designated to the NYSE for financial oversight we will develop a plan for obtaining and sharing information on dual members;
- (iii) closely monitor the effects of increased capital requirements following their implementation, to determine whether higher standards create a need for additional capital to maintain a comfortable cushion over early warning levels.

During times when closer monitoring becomes necessary, we are considering requiring specialists identified as most susceptible to damage to provide daily position and profit and loss estimates shortly after the close of business. We are also prepared to dispatch examiners to review specialists books and records, on a daily basis if needed, to obtain information not otherwise available.

- Explore the possibility of requiring all self-clearing specialists to maintain a line of credit with a bank or lending institution or imposing higher capital requirements on specialists who do not maintain such a line of credit.

We believe that the cost of requiring all self-clearing specialists to maintain a line of credit with a bank or lending institution outweighs its benefits and that imposing higher capital requirements on specialists who fail to maintain such a line of credit would be ineffective.

Requiring all self-clearing specialists to open and maintain a line of credit with a bank or lending institution would impose on specialists an annual charge that could be substantial and on which they would expect to draw only in extraordinary circumstances. It is unclear to us that specialists' performance last October would have been improved by the existence of such credit lines. In our view, the proposed requirement for mandatory bank credit lines is based on

inaccurate information concerning the number of self-clearing specialists and the incorrect assumption that self-clearing specialists engage in no other activities for which they already have adequate banking arrangements.

Self-clearing specialists who are primarily option specialists require little outside financing and have limited amounts of acceptable bank collateral. For those specialists, higher capital requirements would be more reasonable and should be easily satisfied by existing capital. Amex specialists would be unaffected by either of these proposed requirements.

The Staff report, at page 4-50, cites ten Amex specialist units as “introducing” their security transactions to clearing broker-dealers. In fact, all but five units are carried and cleared by another firm. Four of those five specialists are diversified firms with existing banking arrangements. The fifth specialist, which is primarily engaged as a trading firm in options and futures, began arranging credit facilities shortly after the market break when it faced an acute liquidity problem and recognized the need for bank credit lines. However, its net capital position before the market break was far above any higher requirement to which it might have been subjected had these proposed requirements been in effect.

### Market Operations

- Review conditions that led specialists to shut off AutoPer.

AutoPer was not “shut off” on a broad basis by specialists during the market break. Exchange records indicate that less than one percent of Amex listed securities were removed from AutoPer during the week of October 19. In addition, there was only one instance, which occurred on October 21, where an individual specialist removed what may be considered a large number of securities from AutoPer.

In those cases where AutoPer was not used, it was the result of an operational decision by the specialist. Some specialists became concerned that proper sequencing could not be maintained when the display screen filled and additional incoming orders began printing automatically, a feature which avoids lengthy queueing. Similarly, during active market periods, more traffic arrives at the post through the crowd, and the number of limit orders previously entered on the specialist’s book which become marketable increases dramatically. In such cases, some specialists shut off AutoPer to ensure the same level of protection for Per orders as for other customer orders on the book and in the crowd.

Each of these conditions is being addressed through efforts that were commenced prior to the market break. For instance, we are working with those specialists who have terminals located behind them to provide space to relocate the terminals in front. In addition, we are in the process of redesigning the AutoPer screen to eliminate the need, in some instances, to use an additional page to complete execution of an order. The redesigned screen will permit specialists to execute orders even more quickly and reduce the possibility of having orders print and being executed out of sequence. Finally, a pilot program is underway with respect to the implementation of an electronic book which will provide smoother integration of AutoPer and booked limit orders.



- Accelerate efforts to generate same-day compared trades.

A committee composed of representatives of the Amex, NYSE and NSCC has been formed to explore the possibility of shortening the comparison cycle with the intent of increasing the amount of time available to process DKs and QTs by one full day. The Amex is also developing systems to allow same-day floor-derived point of sale comparison for equities and options. We are well into the design phase of this system and plan to implement the first stage in the last quarter of 1988.

As a result of an extensive review of the events of the week of October 19 from an equity comparison standpoint, several proposed enhancements to the NSCC Equity Comparison System are being considered. For instance, a request by our specialists to eliminate suggested name processing on Per trades has been given a high priority. "Suggested names" caused several problems in resolving DKs when member firms named APEX on comparison input in error. NSCC is currently reviewing the effort that would be involved in modifying the system accordingly.

#### Intermarket Trading System

- Consider adopting default procedures to provide that, when a commitment to trade over ITS is not accepted or rejected within the applicable timeframe, an execution report will be automatically generated by the system, based on the commitment price or the then current quotation (whichever is better) for the security in the receiving market.

We should note that the high number of cancellations and expirations of ITS commitments during the week of October 19 was due to a systems backlog of unprecedented proportions. Under more ordinary trading circumstances, including relatively high volume periods, expirations and cancellations of commitments have not been a significant problem for ITS participants. During the week of October 19, the Amex's delivery systems functioned well enough to avoid expiration/cancellation levels significantly higher than normal, and the number of complaints from and to regional exchanges on this matter was not appreciably higher than normal.

We believe it would be premature for ITS participants to make major expenditures to deal with anomalous trading situations which existing systems were not designed to accommodate. The exchanges' examination of ways to upgrade order delivery systems to improve the capacity of our systems to execute all orders - including ITS commitments - is ongoing. Amex and other exchanges are in the process of implementing such upgrades, and believe such developments will permit us, under reasonably anticipated high volume conditions, to execute incoming ITS commitments in a timely manner.

We note that ITS commitments sent to the Amex are handled in the same manner as other orders arriving at the post and given the same consideration in terms of price, priority and precedence. The Amex does not currently provide automatic order execution and does not view it as appropriate, or feasible, for ITS orders to be provided with such executions when other

orders are not. The Amex will continue to insure that ITS orders are afforded the same service levels as other orders. As systems improvements are made across the board, ITS will also benefit from improved service.

- With respect to the ITS Plan, develop pre-opening procedures that would apply after trading imbalance halts, similar to those that apply after “regulatory” halts.

Amex specialists have generally used ITS Plan pre-opening application procedures following both regulatory and imbalance trading halts. We would support an initiative by ITS participants to apply uniform pre-opening procedures following both trading halt situations.

- Define procedures for communication among the exchanges, and identify an ITS contact person in each market who will be available during market emergencies.

We support this suggestion and believe ITS participants can quickly formalize such direct lines of communication, since they are now informally in place. We note that exchange ITS service centers are already equipped to provide extremely rapid communication among participants, and that existing procedures can be readily modified to improve communication during market crises.

#### Options

- Examine whether strike prices should be set at the minimum increments during a period of increasing volatility.
- Discuss with vendors steps that should be taken to coordinate the introduction of new series that may exceed vendor capacity and which series, if any, should be delisted when vendor data base capacity has been outstripped.

The options exchanges announce new series by placing administrative messages on the tape of the Options Price Reporting Authority (“OPRA”). Vendors then transcribe these messages and enter the data into their systems. On October 19th and 20th, the number of series added was so great that the capability of some vendors to add the new series or expand their data bases rapidly enough to hold the new series was outstripped. However, within two to three days, most vendors had expanded their files sufficiently to make their systems current with each exchange as to all existing options series.

Representatives of the OPRA Technical Committee immediately began to design system modifications that will allow the announcement of new series through computer formatted messages. Such modifications will in turn enable vendors to implement computer programs to automatically add these new series to their systems, eliminating the time-consuming and error-prone process of transcribing the administrative messages that is currently used. The Committee reached agreement on the message type at a meeting on December 9th, and implementation of the system modifications is expected to be completed this summer.

With regard to the question of omitting series when the capacity of vendors' data bases has been exceeded, it is the Exchange's opinion that such a practice should never become systematic within the vendor community, and that all series listed on vendors' data bases should be retained at all times. In this regard, an arrangement has been decided upon whereby OPRA will regularly update the vendor/user committee of the Information Industry Association on volume and capacity projections to assist the vendor community in its efforts to have facilities keep pace with growth and provide for unexpected spikes in activity. In addition the Exchange has adopted a policy of delisting selected series of puts and calls within an options class when no open interest exists.

While the Exchange currently has the authority to introduce new strike prices at ten-point intervals in both stock and index options, we have determined after careful consideration to retain the policy of keeping new series at five-point intervals. Nevertheless, we are considering the possibility of using our authority in the event of another dramatic market break to introduce new strike prices only at levels immediately surrounding the market price of the underlying stock or index. In such situations, as the market in the particular underlying instrument turns around, new strikes could be introduced to fill in the gaps between those added earlier and current levels. We are carefully examining the possibility of modifying our policy in this manner, and plan to discuss it with the appropriate Exchange committees when our analysis is complete.

- A review of the way in which public orders participate in the opening. In particular, should all public orders have to be represented by the specialist at the opening?

Currently, the vast majority of public options limit and market orders on the Amex are represented by the specialist at the opening. However, to require that all such orders - which may be either retail or institutional - be so represented may not be completely desirable. Some large retail customers prefer their orders to be represented in the crowd, thereby allowing the overall circumstances at the opening to be considered in determining the ultimate timing and manner of execution. This is also true of some institutional customers. Requiring representation by the specialist at the opening might therefore discourage these customers from participating, possibly contributing to a decrease in liquidity. Similarly, such a requirement would likely affect the ability of market makers to participate in the opening, further decreasing market depth and liquidity. It is therefore our opinion that any such decision should be considered very carefully, with particular emphasis on the possible negative effects such a step might in fact have, and the possibility that, in view of the level of specialist representation such orders already receive, a requirement of this nature is not warranted at this time.

- Review the performance of AutoEx and Amex rules that apply to specialists' and registered options traders' participation, focusing on ways to ensure high levels of participation in volatile conditions.

It is essential to note that regardless of whether registered options traders participate in AutoEx, the specialist is required to participate in any series added to the system. Therefore, AutoEx is always available to public customers.

Registered Options Traders (“ROTs”) may participate with the specialist on the AutoEx system when the best bid or offer is not on the specialist’s book. In order to be eligible to participate on AutoEx, the ROT must execute an agreement with the Exchange. There are two different agreements - one pertaining to the Major Market Index (“XMI”) and a second pertaining to break-out situations in stock options and competitively traded options.

The XMI Agreement requires the participating ROT to satisfy an on-going minimum net capital requirement of \$50,000. The ROT must sign on the system for an entire trading day and be present in the trading crowd during the majority of that day. If the ROT signs on the system on any day during expiration week, the ROT must also sign on the system on expiration Friday. In addition, the participating ROT must refrain from placing orders on the specialist’s book in the AutoEx designated series and must accept Exchange mandated price adjustments for orders executed at incorrect quotes.

The agreement allowing participation on AutoEx for stock options during break-out situations or on competitively traded options requires that the participating ROT be “in good standing at the Amex” and has received permission from his or her clearing firm to participate. The ROT must sign on the system within five minutes of the announcement of the emergency situation and must remain in the options trading crowd for the duration of the emergency. In addition, the ROT may not place orders on the specialist’s book for the break-out or competitively traded option and must accept Exchange mandated price adjustments for orders executed at an incorrect price.

The Exchange has a number of proposals, currently awaiting SEC approval, which will expand the use of the AutoEx system. These proposals include the use of AutoEx in select equity options on a full-time basis.

It is the Exchange’s intention, upon approval of these proposals, to broaden ROT participation in a variety of ways, including allowing ROTs to 1) sign on the AutoEx system at any time during the day; 2) choose whether they will participate in either calls, puts or both; and 3) participate on the AutoEx system for more than one option (provided the ROT is able to be considered in the trading crowd for each option).

- Examine rules regarding opening rotation procedures and methods for speeding up rotations and handling rotations during volatile periods.

During the market break, the Amex did not experience any unusual delays in opening rotations. In fact, on average, opening rotations in Amex options took no longer than normal.

For the most part, exchanges utilizing a specialist/ROT trading system encounter fewer difficulties during opening rotations than those exchanges solely reliant upon a market maker system. Part of the reason has to do with the specialists’ role as the focal point in establishing opening prices and assuming responsibility for crowd control. ROTs provide additional depth and liquidity to the marketplace.

The combination of specialists and ROTs provides for a relatively short time frame for an opening rotation to be completed. On days in which the Amex experiences volume of 75,000 to 80,000 contracts in the Major Market Index (our most active option), the opening rotation takes approximately 15 minutes.

Notwithstanding the above, the Amex is constantly seeking ways in which to improve both the speed and quality of opening rotations.

Currently, the XMI rotation commences by opening the lowest call strike price in the nearest month, followed almost immediately by the same strike put option in that same month. At this point, the rotation proceeds in what might be best described as a vertical-horizontal manner. For example, once the nearest month, lowest strike price call and put have been opened, the lowest strike price call and put in the second month is opened, followed immediately by the lowest strike price call and put in the third month. A higher strike price in the second or third month may not open for trading prior to that strike price opening in the near month. This procedure allows for the near simultaneous opening of all months.

Normally, given the wide range of strike prices, the rotation is completed within 10 minutes and at that time all Major Market Index series are open for “free trading”.

At this time the Amex is examining the feasibility of introducing an opening rotation in the Major Market Index which would allow for the opening and free trading of the more actively traded options series in a more timely fashion than afforded by the current system. The more actively traded series are generally the near term months with strikes at or near the money. The proposed rotation would allow for first opening those options which qualify for AutoEx (AutoEx will usually include the five or six call strike prices and the five or six put strike prices bracketing the current index value in the near term expiration month). Immediately upon completing the opening rotation in these strike prices, they would become available for free trading. Additionally, the AutoEx system would be turned on simultaneously with free trading. This would allow for all AutoEx qualified orders (currently market orders or executable limit orders of 10 contracts or less) entered via the Amex automated system to receive instantaneous execution. At this point, the opening rotation would proceed in a normal manner.

The benefits are that more actively traded options would be opened and free traded on a more timely basis; because of the time reduction, disproportionate changes in opening sale prices and next sale prices should be reduced, and AutoEx would be available sooner than currently possible. If this proposal proves to be more efficient than current methods, the feasibility of using this system floor-wide can be examined.

- Review ways to ensure adequate levels of specialist participation in volatile markets.

Amex specialist participation has been consistently high since the inception of listed options in 1975. It has risen in the aftermath of the market break, as indicated by the following comparison between the week of October 19 and the week of September 21 (the week following September expiration).

DATE	SPECIALIST PARTICIPATION	DATE	SPECIALIST PARTICIPATION
Oct 19	32.2%	Sept. 21	25.1%
20	29.5%	22	24.8%
21	26.6%	23	24.3%
22	28.7%	24	26.1%
23	25.1%	25	25.7%

The following chart lists specialists' monthly participation in options from July 1987 to date, and evidences above-average specialist participation for the month of November. This indicates that specialists continued to actively engage in market making during a period of extreme market uncertainty and low public interest. Participation slipped slightly below average in December, but increased in January to 25.4%, just above the average for the period reviewed. The following chart graphically illustrates that, for the month of October, as options volume peaked, specialists participation reached its highest level:

MONTH	SPECIALIST PARTICIPATION TTV	OPTION VOLUME (Cts. in millions)
Jan 88	25.4%	3.6
Dec 87	23.9%	3.5
Nov 87	26.6%	3.1
Oct 87	26.5%	7.3
Sept 87	24.3%	6.3
Aug 87	24.1%	6.9
Jul 87	24.2%	6.0
AVERAGE:	25.0%	

Despite the continuing high level of participation in the Amex options market, we agree with the Staff that efforts must be undertaken to ensure that adequate levels of option specialists' participation, such as those demonstrated above, are maintained in the future. With this in mind, we propose to closely monitor and review option specialists' participation each month, with an increased emphasis on specialists' performance in maintaining tight, liquid markets. Since the inception of its options program, the Amex has conducted performance evaluation of options specialists and ROTs. Although options performance standards have traditionally been more subjective than equity standards, this is a function of their derivative nature. In addition to routine surveillance procedures, brokers and registered options traders regularly evaluate specialist performance through a survey which measures performance on a variety of factors. Nevertheless, despite the difficulties of using traditional performance measures for derivative markets, the Exchange's review of the market break has caused the Exchange staff to begin consideration of more formal standards. We believe that such guidelines should be based primarily on quote spread differentials, and that a determination of unsatisfactory performance

on this basis should lead quickly to the imposition of appropriate sanctions, up to and including reallocation.

We are also considering the feasibility of imposing a modified firm quote policy in options. Under such a policy, option specialists would be expected to disseminate timely markets that reflect actual market conditions with consideration given to supply and demand in the trading crowd. We believe such a policy could add to the credibility and quality of our markets. The modified firm quote policy would ensure that displayed markets are as accurate as possible, and thus afford the public an up-to-the-minute view of current market conditions in a particular product. Both of these initiatives must be fully reviewed and adopted by committees and the Exchange Board prior to implementation.

Another means of increasing specialist and ROT participation will be extension of the AutoEx system to reasonably active options on a full-time basis on our Floor, upon Commission approval of our currently pending rule filing.

- Develop methods to ensure pricing continuity and fairness during volatile conditions.

As discussed in our response above, more specific performance criteria and standards would ensure not only adequate specialist participation, but, in addition, specific safeguards for fair value pricing of options regardless of market conditions. Recent reviews of option specialist activities have underscored the significant impact of underlying stock volatility on options pricing, and it is therefore expected that volatility data will be a key element of the program in analyzing specialist performance. The use of volatility data will permit the development of pricing models to help establish fair value pricing. Consideration would also be given to the supply and demand criteria of each option series, and theoretical values. Although theoretical values are at best subjective, they can be very useful in determining minimum guidelines on premium evaluation.

- Examine performance of index option specialist during the market break, especially October 20.

A special study into XMI specialist and ROT performance for trade date October 20 was undertaken by the Exchange and has been completed.

After the previous day's 100-point decline in the Major Market Index, on October 20 the index further declined between 10:00 a.m. and 11:48 a.m., at which time the Exchange halted trading in XMI, due to the fact that trading in more than 20% of its components had been halted on the NYSE. Trading in futures on the Major Market Index continued on the Chicago Board of Trade during this period, with the value of the futures dropping to a low of 285 at 12:18 p.m. At approximately 1:15 p.m., with the future at 326, XMI options reopened with the specialist and a limited number of traders present in the crowd. Due to the possibility of further declines and trading halts in the underlying stock components, quotes in put series were spread to unprecedented and unacceptable levels. Prices of deep in-the-money puts were significantly above intrinsic value, and even at these prices there was little interest. Although unprecedented

market conditions are mitigating to some extent, we are unable to conclude that overall specialist and ROT performance in XMI options constituted a course of dealings that the Exchange would deem fair and orderly.

The Exchange reviewed and compiled customer complaints and all materials associated with XMI trading, including options journals, cash Index values, MMI Futures trading time and sales, component stock data and other relevant documentation. These materials were then submitted to the Performance Committee. The Committee interviewed the specialist and option traders who participated in XMI on October 20, and then conducted a trade-by-trade analysis. This review involved a number of meetings and a special study regarding volatility in XMI and the Major Market Index generally.

After examining all the relevant data, the Committee remained concerned about the extreme premiums and wide quote spreads of in-the-money and deep in-the-money puts and had serious questions with respect to the specialist unit's fulfillment of its responsibility to maintain fair and orderly markets. The Committee unanimously determined that certain put transactions were unsatisfactorily priced.

It is extremely important to note that the Committee unanimously recognized that the "right prices" for most trades on October 20 would be impossible to calculate, as prices can ultimately be determined only through the mechanics of price discovery. Nevertheless, the Committee did determine that, even under the extreme market conditions, a volatility analysis would be an appropriate measure for evaluating fair pricing. Within that framework, the Committee determined that a number of put executions -- specifically, those which occurred at a volatility factor exceeding 325 -- were improperly priced, and that with respect to these executions, the Unit's performance was unsatisfactory. The Committee severely admonished the specialist unit for substandard performance, and advised it that any recurrence of inadequate performance in XMI would leave the Committee with no alternative other than to strongly consider reallocation. The Committee instructed the specialist to develop a plan to ensure adequate performance in the future. Representatives of the specialist unit will present their response to the Committee shortly for the Committee's approval.

Consistent with the Performance Committee's action, the XMI specialist and member firms representing customer executions which exceeded the volatility factor have been negotiating adjustments. These negotiations are continuing.

- Evaluate adequacy of current margin levels for index options and equity options.

Recent events have confirmed that price volatility of individual stocks and stock indexes can change dramatically from time to time. As a result of the October market breaks, margin requirements for index options were increased effective November 2, 1987. However, such changes can occur not only towards increased volatility, but also towards decreased volatility.

Margin levels for individual stock options and stock index options have historically been established at levels based on longer term perspectives of price volatility, and have in general not



been focused on current price volatilities at any given time or on different price volatilities of stocks within the option group.

The Exchange believes that margin action dealing with changes in price volatility levels of stocks and indexes underlying options could be better dealt with if Exchanges were given authority to adjust margin levels above an SEC-approved floor without the necessity of filing for rule changes as is the current practice.

Such a plan would envision a system for monitoring price volatility which the individual options exchanges would conduct and the establishment of a margin committee of the options exchanges which would consult regularly to review and compare stock and index price volatility data. The Committee would be empowered to raise margin levels if circumstances so indicated, or to reduce them (but to no lower than the SEC-approved floor level) if historical data justified such reduction. The Exchange is currently discussing such a plan with other options exchanges, and if agreement is reached, will propose it to the Commission.

In the meantime, the Exchange preliminarily believes that the following changes in margin levels could be a basis for further discussion:

1. increase the minimum equity required for accounts writing certain short options to \$25,000 from the current \$2,000;
2. amend the short straddle and combination margin requirement to require that the margin be the amount of margin required on the side with the largest margin requirement plus the amount of the premium on the other side;
3. increase the minimum amount of margin to be added to the premium for out of the money options to an amount to be determined after discussion.

As the discussion above suggests, we have made significant strides in dealing with the issues posed by the events of last October, but we note that many of these issues are not susceptible to easy solution. We will continue discussion with other self-regulatory organizations and with the Commission staff to assess and improve the ability of our markets to deal with market crises. The insights and experiences expressed by many market participants has been, and will continue to be, extremely helpful to the Amex as we search out needed adjustments to our systems and procedures. Please let me know if we can be of any further assistance.

Sincerely,

Kenneth Leibler