

Form ATS-N Material Amendment filing for ATS-1 (MS Trajectory Cross)

Part Number	Item Number	Question	Answer
Part III	Item 5	Means of Entry	
Part III	Item 5c	<p>Are there any other means for entering orders and trading interest into the NMS Stock ATS (e.g., smart order router, algorithm, order management system, sales desk)?</p> <p>If yes, identify and explain the other means for entering orders and trading interest, indicate whether the means are provided through the Broker-Dealer Operator either itself or through a third-party contracting with the Broker-Dealer Operator, or through an Affiliate of the Broker-Dealer Operator, and list and provide a summary of the terms and conditions for entering orders or trading interest into the ATS through those means.</p>	<p>Yes.</p> <p>Participants can enter orders and conditional indications in ATS-1 via a number of front-end order management systems (OMSs), including third-party OMSs.</p> <p>Additionally, Conditional indications (and any orders resulting from such conditional indications) can enter ATS-1 indirectly from certain Morgan Stanley algorithms. There are no other means for entering conditional indications or any orders resulting from such conditional indications. The terms and conditions for such entry are described in response to Part III, Item 9(a) (for conditional indications) and Item 7(a) (for orders resulting from conditional indications). Morgan Stanley algorithms that access ATS-1 communicate with ATS-1 via FIX connection. All Morgan Stanley algorithms access ATS-1 via the same FIX protocol.</p> <p>The Morgan Stanley algorithms that can enter conditional indications and resulting orders in the ATS-1 MSTX book and/or the MSLC book (both as described in Part III, Item 9(a)) are configured to do so by default setting. The MSTX book is designed for shorter duration orders whereas the MSLC book is designed for longer duration orders. A client, business unit, or affiliate of the Broker-Dealer Operator can change this default setting with respect to its orders to be handled by such Morgan Stanley algorithm. That is, Participants can designate orders to be handled by Morgan Stanley algorithms not to interact with the MSTX book and/or the MSLC book in ATS-1. Such designation can be made on an order-by-order basis (for such orders to be handled by such algorithms), either by the Participant or by the Broker-Dealer Operator in</p>

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			<p>response to a Participant's request, via FIX tag or as a default setting for that Participant set by the Broker-Dealer Operator at the Participant's request. Designations made on an order-by-order basis (for orders to be handled by such algorithms) are effective immediately with respect to that order to be handled by such algorithm if the Participant makes the designation. If the designation is made either on an order-by-order basis by the Broker-Dealer Operator in response to a Participant's request or as a default setting for that Participant, such designation will become effective once the requisite change can be made, which can vary in time.</p> <p>The Morgan Stanley algorithms that can enter conditional indications and resulting orders in the ATS-1 MSLC book (as described in Part III, Item 9(a)) are not configured to do so by default. The MSLC book is designed for longer duration orders. A client, business unit, or affiliate of the Broker-Dealer Operator can change this default setting with respect to its orders by notifying the Broker-Dealer Operator of such request. That is, Participants can designate orders to be handled by Morgan Stanley algorithms to interact with the MSLC book in ATS-1. Once a Subscriber has notified the Broker-Dealer Operator that it is electing to allow their algorithmic orders and conditional indications to interact with the MSLC book, the Subscriber can make such designation on an order-by-order basis, via FIX tag or as a default setting for that Subscriber set by the Broker-Dealer Operator at the Subscriber's request. Designations made on an order-by-order basis (for orders to be handled by such algorithms) are effective immediately with respect to that order to be handled by such algorithm.</p> <p>If the Subscriber requests this change for all of their algorithmic order flow by default, such designation will become effective once the requisite change can be made, which can vary in time.</p>

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Part III	Item 9	Conditional Orders and IOIs	
Part III	Item 9a	<p>Does the NMS Stock ATS send or receive any messages indicating trading interest (e.g., IOIs, actionable IOIs, or conditional orders)?</p> <p>If yes, identify and explain the use of the messages, including information contained in the messages (e.g. price or size minimums), how the message is transmitted (e.g., order management system, smart order router, FIX), when the message is transmitted (e.g., automatically by the ATS, or upon the sender's request) the type of Persons that receive the message (e.g., Subscribers, Trading Centers), responses to conditional orders or IOIs (e.g. submission to firm up conditional orders), and the conditions under which the message might result in an execution in the ATS (e.g., response time parameters, interaction, and matching).</p>	<p>Yes.</p> <p>ATS-1 is a dark pool designed to provide matches over time intervals. ATS-1 executes at VWAP over the relevant time interval, as described in response to Part III, Item 11(a). ATS-1 accepts conditional indications from certain Morgan Stanley algorithms and from Subscribers and the Broker-Dealer Operator directly. ATS-1 maintains two continuous conditional books, one for Subscribers and the Broker-Dealer Operator entering conditional indications directly into ATS-1 and conditional indications entered by certain Morgan Stanley algorithms (the "MSLC" book) and a separate book for conditional indications entered solely by the Morgan Stanley algorithms (the "MSTX" book). The ATS-1 MSTX book is designed for conditional indications with a short duration trajectory (up to ten minutes) whereas the ATS-1 MSLC book is designed for conditional indications with a long duration trajectory (up to all day).</p> <p>If a user of the Morgan Stanley algorithms has designated their conditional indications and related orders to be eligible to participate in the MSLC book (as described in Part III, Item 5(e)), the applicable Morgan Stanley algorithms <u>has</u> the discretion to determine whether to place the conditional indication as eligible to match in the MSLC book, the MSTX book or place conditional indications in both books.</p> <p>MSTX Book:</p> <p>Before explaining the use of conditional indications, it is necessary to provide background on the interaction between the Morgan Stanley algorithms and ATS-1 and on the operation and structure of the ATS-1 MSTX book.</p> <p>For context, Morgan Stanley offers certain algorithms that allow users to target certain trading benchmarks and other trading objectives. Those</p>

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			<p>algorithms do so by generating a trading trajectory, which is a plan to trade certain amounts of a security over certain periods of time.</p> <p>The algorithm may then seek to trade all or a portion of the trading trajectory's planned trades in ATS-1. To do so, the algorithm will create a trajectory it is willing to enter in the ATS-1 MSTX book in the near term (up to ten minutes) and will communicate information relating to that near-term trajectory to ATS-1 in the form of a conditional indication. ATS-1 determines potential pairings of such conditional indications as described in further detail below and in response to Part III, Item 11(a). Note that the applicable algorithms determine the trading trajectory independent of ATS-1 and that ATS-1 does not alter any trading trajectory created by such algorithms.</p> <p>ATS-1 accepts conditional indications from certain Morgan Stanley algorithms that represent a non-firm willingness to trade. Each conditional indication indicates the number of shares willing to buy or sell over certain future time intervals that comprise potential durations of a crossing round. Specifically, a conditional indication will indicate the number of shares willing to buy (or sell) if a crossing round lasts one minute, the number of shares if a crossing round lasts two minutes, and so on, up to if a crossing round lasts ten minutes. Conditional indications (including buy, sell, sell short, and sell short exempt conditional indications) can be at the market or designated with a limit price.</p> <p>ATS-1 evaluates, for conditional indications within the book on each side of the market, the number of shares willing to be paired in a crossing round of various potential durations and seeks to pair them on a bilateral basis. The primary consideration in the MSTX book for the duration of a crossing round is determining the longest period of time for which the greatest number of shares per minute can be paired. There can be at most one crossing round per security at any given point in time. The duration of a crossing round may vary from crossing round to</p>

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			<p>crossing round and, regardless of duration, a crossing round will not exceed the end of regular trading hours. The duration of a crossing round is not security specific and will vary for each crossing round and each security, based upon the terms of the conditional indications to be paired, as described above.</p> <p>Upon selecting a crossing round duration, ATS-1 pairs conditional indications for such duration and then generates a bilateral firm-up request for each side of each pair to the Morgan Stanley algorithms that entered the paired conditional indications. Those algorithms can then send corresponding orders to ATS-1 that are firm. Each firm-up request contains ID numbers for each bilateral pairing, the size on which each conditional indication is being requested to firm-up, and the duration of the crossing round that will occur following the entry of firm orders in response to the firm-up request. Each conditional indication expires when ATS-1 sends the firm-up request to the Morgan Stanley algorithm(s) for each side of the bilateral pairing. Firm-up requests must be responded to within one second. ATS-1 may send multiple firm-up requests for an individual conditional indication as one message; however, each resulting order will correspond to a distinct contra-side pairing. Orders resulting from paired conditional indications are matched in ATS-1 at a price equal to the interval VWAP over the crossing round, as described more fully in response to Part III, Item 11(a). If the Morgan Stanley algorithm or algorithms that entered both conditional indications that are the subject of a bilateral pairing do not respond to the firm-up request with a firm order, both conditional indications in the bilateral pairing will already have expired once the corresponding firm-up request was sent by ATS-1 and therefore will no longer exist for any subsequent pairing.</p> <p>A conditional indication entered in the ATS-1 MSTX book during an ongoing crossing round is eligible to participate in the next crossing round.</p>

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			<p>MSLC Book:</p> <p>ATS-1 maintains a separate and distinct book for conditional indications entered directly into ATS-1 by either Subscribers, the Broker-Dealer Operator or certain Morgan Stanley algorithms that allow users to target certain trading benchmarks and other trading objectives. Those algorithms do so by generating a trading trajectory, which is a plan to trade certain amounts of a security over certain periods of time.</p> <p>The algorithm may then seek to trade all or a portion of the trading trajectory's planned trades in ATS-1 in the MSLC book and/or MSTX book. To do so, the algorithm will create a trajectory it is willing to enter in the book and will communicate information relating to that trajectory to ATS-1 in the form of a conditional indication designated either for the MSTX book or MSLC book. The ATS-1 MSLC book determines potential pairings of such conditional indications as described in further detail below and in response to Part III, Item 11(a). Note that the applicable algorithms, the Broker-Dealer Operator and/or Subscribers determine the trading trajectory independent of ATS-1 and that ATS-1 does not alter any trading trajectory created by such algorithms, Broker-Dealer Operator or Subscriber.</p> <p>The ATS-1 MSLC book accepts conditional indications from certain Morgan Stanley algorithms, the Broker-Dealer Operator and Subscribers that represent a non-firm willingness to trade. Each conditional indication indicates the number of shares willing to buy or sell over certain future time intervals that comprise potential durations of a crossing round. Specifically, a conditional indication in the MSLC book will indicate the number of shares willing to buy (or sell) if a crossing round lasts one minute, the number of shares if a crossing round lasts two minutes, the number of shares if a crossing round lasts five minutes, the number of shares if a crossing round</p>

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			<p>lasts ten minutes, and so on, up to if a crossing round lasts all day. Conditional indications (including buy, sell, sell short, and sell short exempt conditional indications) can be at the market or designated with a limit price.</p> <p>The ATS-1 MSLC book evaluates, for conditional indications within the book on each side of the market, the number of shares willing to be paired in a crossing round of various potential durations and seeks to pair them on a bilateral basis. There can be concurrent crossing rounds per security at any given point in time. The duration of a crossing round may vary from crossing round to crossing round and, regardless of duration, a crossing round will not exceed the end of regular trading hours. The duration of a crossing round is not security specific and will vary for each crossing round and each security, based upon the terms of the conditional indications to be paired, as described above.</p> <p>Upon selecting a crossing round duration, ATS-1 pairs conditional indications for such duration and then generates firm-up requests for each side of each pair. ATS-1 will send a firm-up request to the Subscriber(s), Broker-Dealer Operator or Morgan Stanley algorithm(s) that sent the conditional indication generating the conditional match. Depending upon the source of the applicable conditional indication, such firm-up request may be sent to the Subscriber, Broker-Dealer Operator and/or to a Morgan Stanley algorithm, as applicable. Those algorithms, the Broker-Dealer Operator or Subscriber (where applicable) can then send corresponding orders to the ATS-1 MSLC book that are firm. Each firm-up request contains ID numbers for each bilateral pairing, the size on which each conditional indication is being requested to firm-up, and the duration of the crossing round that will occur following the entry of firm orders in response to the firm-up request. Each conditional indication expires when ATS-1 sends the firm-up request for each side of the bilateral pairing. Firm-up requests must be responded to within one second. Orders resulting from paired conditional indications are</p>

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			<p>matched in ATS-1 at a price equal to the interval VWAP over the crossing round, as described more fully in response to Part III, Item 11(a). If the Morgan Stanley algorithm(s), Broker-Dealer Operator or the Subscriber(s) that entered both conditional indications that are the subject of a bilateral pairing do not respond to the firm-up request with a firm order, both conditional indications in the bilateral pairing will already have expired once the corresponding firm-up request was sent by ATS-1 and therefore will no longer exist for any subsequent pairing.</p> <p>The Broker-Dealer Operator monitors firm-up and cancellation rates for Subscribers whose conditional indications receive firm-up requests. If a Subscriber engages in a pattern of not timely responding to firm-up requests or cancelling orders, the Broker-Dealer Operator will take appropriate action, which could range from contacting the Subscriber to bring about a change in the Subscriber's behaviour or designating the Subscriber as no longer eligible as a Subscriber for ATS-1.</p> <p>A conditional indication entered in ATS-1 during an ongoing crossing round is eligible to participate in the next crossing round. Additionally, a conditional indication entered in the ATS-1 for participation in the MSTX book is ineligible to participate in a crossing round on the MSLC book and a conditional indication entered for potential matching in the MSLC book is ineligible to participate in a crossing round on the MSTX book.</p>