

Final Recommendations on the Maritime Transportation Data System Requirements

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Federal Maritime Commission

Washington, DC

December 2024



Executive Summary

This report is being issued from Commissioner Carl W. Bentzel. Carl W. Bentzel is a Commissioner with the U.S. Federal Maritime Commission. The thoughts and comments expressed here are his own and do not necessarily represent the position of the Commission.

In November 2021, Federal Maritime Commission Chairman Daniel B. Maffei requested that I examine the issue of data and maritime commerce. The focus of the project was two-fold: 1) to catalog the status quo in maritime data elements, metrics, transmission, and access, and 2) to identify key gaps in data definitions/classification and utilization. The goal was to develop recommendations for common data standards and lexicon and for access policies/protocols.

This became known as the Maritime Transportation Data Initiative (MTDI).

The process included 18 public meetings with every aspect of the maritime/intermodal supply chain, ultimately involving 80 different participants. These events were livestreamed and were supplemented by an open comment process, and additional meetings with a wide range of international and federal stakeholders and other pertinent parties. The MTDI culminated with a Data Summit held on June 1, 2022, that included the full participation by MTDI representatives. A summation document was prepared by FMC staff following the Summit. All information and proceeding involving the MTDI are available on the [FMC YouTube Channel](#) and the FMC website.

In November 2022, a draft document conveying the preliminary recommendations from the MTDI was shared with all MTDI participants as well as other interested parties to review and provide comments helpful to formulating a set of final recommendations on implementation of a track and trace methodology for the U.S. maritime supply chain. These track and trace events are separated and identified in specific proposed recommendations that can be found in the Appendix (1.0-1.4).

- 1.0 General Reporting Requirements**
- 1.1 Ocean Carriers Requirements**
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- 1.3 Port Operations Requirements and Recommendations**
- 1.4 Intermodal Rail Requirements**
- 1.5 Proposed RFI 3**

The final recommendations generated through the MTDI process call for the establishment of the Maritime Transportation Data System (MTDS). In broad terms, the MTDS would: establish a system of information on planned ocean carrier voyages, information on vessels transits with real-time position of vessels and real-time estimates of arrival, harmonization of standards for public information related to terminal access for cargo retrieval and standardize the method of characterizing cargo status for cargo retrieval from MTOs. The recommendation also proposes to extend similar in-transit visibility and terminal status information requirement to intermodal rail carriers servicing ocean carrier shipments.

This final recommendation also addresses transparency, ease of access, and coordination of information concerns. The wide variety of carriers, terminals, and affiliated services providers (e.g., drayage trucking intermodal equipment providers, warehousing, distribution centers, off-site

depots) and unique market and geographical considerations ensures that almost every port complex is unique in operations and the process of coordinating the thousands of companies doing business at a port. As such, the MTDS recommendation would recognize the role of the port authority in providing public access to ensure that they provide information from ocean carriers servicing the port, MTOs operating at the port, and intermodal rail carriers servicing ocean carrier intermodal shipments through the port, as well as other general port-wide information such as that related to scheduling berthing/pilotage, and other port-wide operating conditions. Additionally, the recommendation for the MTDS proposes that the FMC issue voluntary guidelines on potential activities surrounding intermodal services impacting intermodal ports.

Since the release of the Maritime Transportation Data Initiative (MTDI) recommendations in April 2023, I have followed up with two Requests for Information (RFI) to secure additional public feedback. The first RFI, released August 16, 2023, focused on general concerns regarding existing levels of data communication between transportation and service providers and shippers or other users of information([Docket No. FMC-2023-0016](#)). The second RFI, released April 16, 2024, focused on recommendations contained in the MTDI Report addressing transparency, data accuracy and cargo availability. This information has contributed to defining a practice of sharing operational information for international shipping ([Docket No. FMC-2023-0016](#)). I had planned to issue one additional RFI to solicit views on separate segregated operational issues impacting the proposed practice such as recommendations for classification of cargo available at an MTO; and other overarching issues impacting the recommendations. This proposed RFI is included as Appendix 1.5. Included with the recommendations is an industry approved lexicon. These definitions are part of the final recommendations package. The proposed regulations can be linked back to the [April 2023 Recommendations](#).

Throughout the MTDI process, industry has made it clear that standards need to be in place to provide a sustainable practice for the successful and efficient sharing of information as it pertains to cargo operations. All commentary through the RFI process recognized and endorsed the need for enhanced and more reliable information on ocean shipping. There were no comments in opposition to the recommendations issued in April 2023. All shippers and an overwhelming majority of comments supported the institution of mandatory upgrades on reporting of planned ocean carrier voyages, information on vessels transits with real-time position of vessels, and real-time estimates of arrival. MTDS represents the building out of such an operational practice. The following discussion will address where the public and supply chain experts have identified as the “pinch points” and where the MTDS practice will need to be applied.

Before identifying the points of focus of the MTDS moving forward, an overview of where MTDI fits in the federal landscape of data/supply chain initiatives is in order. Agencies and organizations that have ongoing supply chain and data initiatives since the pandemic hit, include the U.S. Department of Commerce and the U.S. Department of Transportation, in addition to the FMC’s MTDI effort. Additionally, there has been a general standard setting organization that has been working to cultivate a maritime data protocol. Finally, the Digital Container Shipping Association (DCSA) has been a strong contributor and supporter of the MTDI.

To recap, from the federal perspective, the data/supply chain initiatives are as follows:

USDOT – Freight Logistics Optimization Works (FLOW) – The FLOW data collected by USDOT is intended to provide a broad, daily view of the current conditions of the overall logistics network. This is done by utilizing shipping bill of lading and purchase order data from program participants. Stakeholders submit organizations data on a voluntary basis. The FLOW work product differs from MTDI in that it does not address the provision of day-to-day schedule changes that impact shipping schedules and estimated arrivals and departures from U.S. ports.

U.S. Department of Commerce (DoC) – Supply Chain Center. The DoC represents a corporate approach, not operational, focusing on the relationships between businesses and suppliers, a research approach and the supply chain’s impact on the U.S. economy.

Maritime Transportation Data System (MTDS). As an independent regulatory agency, the FMC has regulatory jurisdiction over the practices and operational impacts of the maritime supply chain. The purpose of the MTDS is to develop operational practices for the day-to-day movement and handling of cargo to create greater efficiency and reliability.

Track and Trace

The fundamental tenants of the MTDS recommendation are embodied in the track and trace methodology. While track and trace is not a new concept, it has only recently been embraced by the container shipping industry. In 2022, prior to the start of MTDI, there were zero API calls between shipper and carrier. As of today, there are 180 million API track and trace communications per month. While there has been some progress in adoption of standards governing the implementation of the track and trace methodology, there remains considerable questions about the quality and timeliness of operational data.

The track and trace method tracks the location and process of goods moving by vessel from the scheduling of service and transit with estimated arrivals. Track and trace is a tool to enable advanced supply chain planning, managing day-to-day operational services such as cargo delivery or retrieval, and can provide a beneficial tool to mitigate congestion issues. The track and trace process allows the shipper and carriers to trouble shoot and enable shippers to quickly identify and facilitate alternatives to avoid congestion. Without adequate information shippers face additional costs, lost efficiency, and unnecessary delays, in addition to business opportunity costs.

MTDI – there are seven pillars of the MTDS practice. These are the “pinch points” within the supply chain that a MTDI practice should revolve around:

- Schedule Reliability
- In-transit visibility
- Earliest Receiving Date (ERD)
- Access to Terminals
- Container Availability/ Detention and Demurrage
- Empty Container Returns
- Lexicon

Further Recommendations:

I am proposing further modifications and discussions on the merits of each change on the original proposal, the text of the proposal has been included by refence at the end. The changes are as follows:

Appendix 1.0 MTDS General Information Recommendations:

General information requirements stipulate that data required to be kept open-faced, or publicly available should be made publicly available through an API/internet and accessible to the public for a three-month period and maintained for two years. Changes to the information should be time and date stamped in order to track operational change.

Closed information is information to cargo shipments, primarily concerning classification of cargo while in a terminal while in a terminal and is reserved for those parties engaged in the shipping contract.

I would propose that this information be kept confidential by regulation in order to avoid adverse competitive consequences and to avoid terminal information to be used adversely against labor in contract negotiations.

Importantly, this section of the recommendation for MTDS establishes “best source” requirements for the sourcing of information to require the party in possession of the cargo to provide information on the status of the cargo. Third parties providing cargo information would be required to use information from the best source or by providing access information on how to contact the best source.

Appendix 1.1 Ocean Carriers Recommendations

Ocean carriers are taking steps with the track and trace methodology but are not willing to fully embrace the need to provide public information related to real time operational changes to cancelation to vessel services, in transit visibility with estimated arrivals at U.S. ports, and notification to terminals to be used in establishing earliest receiving dates (ERD) for export cargos. I believe that without a requirement, ocean carriers will continue to fail to provide real time information on their services.

The recommendations to Appendix 1.2 would change to authorize ocean carriers to close down informational services at their discretion to protect against any maritime security threats that would threaten the welfare of their crew and ship. Additionally, I would recommend that any regulation proposed to implement the MTDS would include a two-year exemption from the application of being considered under prohibited acts.

Appendix 1.2 Marine Terminal Operator Recommendations

I would propose to change the Earliest Receiving Date (ERD) notification from five days to six days in order to account for an ocean carrier export cut off day.

Appendix 1.3 Port Operations Coordination Recommendations

The voluntary recommendations for port operations coordination remain the same, however, I would recommend a source of funding for ports to secure funding for port technology funding. I would also note the importance on each port to provide adequate notice to ocean carriers securing access into their ports. This information will be critical to ensure forecasted ocean carrier ETA's are accurate.

Appendix 1.4 Intermodal Rail Carriers Recommendations

No changes.

Changes to the lexicon:

Empty container return – is a contract term stipulating where a container should be returned. The default return is usually the marine terminal from which the container was delivered, but the terms for the return location may be altered by contract or contract addendum. In the event of a change of location the ocean carrier shall provide best source information on securing terminal access to the new return location.

Appendix 1.0 - General Information:

Authority:

46 U.S.C. § 41102(c) - “A common carrier, marine terminal operator, or ocean transportation intermediary may not fail to establish, observe, and enforce just and reasonable regulations and practices relating to or connected with receiving, handling, storing, or delivering property.”

Applicability:

- Data requirements will be applicable to all events and status impacts outlined for coverage in the international journey of containerized (TEU/FEU and high cube) cargo from point of receipt of cargo in the United States for export, or the point of receipt of cargo at a foreign nation for import, by a common carrier under a through bill of lading. MTDS data requirements will continue until delivery at inland point destination.
- Data requirements will be applicable to all events and impacts outlined for coverage to the extent of Federal Maritime Commission (FMC) jurisdiction over through transportation under through rate, as defined in 46 U.S.C. § 40102 (25) & (26).
- Data requirements are mandated to be provided as an API.

Best information:

- MTDI system information recommendations will be provided from the best available source of information, and the best source of information resides with the operator or party to the journey is in actual possession of the cargo. To the extent that a common carrier wants to provide information when another operator or party in the journey is in possession of the cargo, the common carrier will provide the same information as provided by the operator or party that has possession of the cargo, or alternatively provided direct access to the same information from the party in possession of the cargo.

Information:

- Data that should be provided will be classified as either available as open facing, or closed facing.
- Open facing information is data that will be made available to the public. This information should remain available publicly for 3 months and stored for up to a 2-year period.
- Closed facing information is data that is business confidential available to the transportation customer and is encrypted and protected by a pin or other security system and accessible only to those parties legally entitled to access the data and should remain publicly available for 3 months and stored for one year.

Appendix lexicon recommendations:

The MTDS provides a harmonized glossary of terms describing legal activities that should be covered by the Maritime Transportation Data System and establishes the lexicon to describe transportation events and status description for containerized cargo covered by MTDS. Importantly, the lexicon and information requirements establishing a real-time system of information governing the movement and status of containerized cargo through the entirety of the system would be enforced by regulation in order to harmonize compliance. The following harmonization of definitions that bear special importance are:

- Detention: is a penalty charge that is assessed, by a carrier, for use of a container, beyond an allocated period of free time, to incentivize the return of the container. To the extent that a 3rd party collects detention on behalf of a carrier it shall be consistent with the amount charged by the carrier for use of its container more than allocated free time.
- Demurrage: is a penalty charge that is assessed, by a terminal operator terminal, for use of storage at the terminal, beyond an allocated period of free time for pick-up, to incentivize the pick-up of the container from the terminal. To the extent that a 3rd party collects demurrage on behalf of a terminal it shall be consistent with the amount demurrage charged by the terminal operator.
- Earliest Receiving Date (ERD): is an actual and estimated event where a carrier provides publication information to a terminal for publication that the carrier is estimating real time (ETA) arrival at a terminal berth within five days. The terminal would be required to make this information available to provide terminal access to exporters. Any change to availability caused because of issues related to terminal operating requirements shall be made publicly available by 12 PM the preceding day of business.

Ocean carrier real time information recommendations for common carrier service include the following definitions:

- Planned: a carrier or carriers formulates master and long-term schedule that provided public information three months in advance with real time information of notice of blanked sailings time and date stamped.
- Estimated: a carriers or carriers, consistent with a long-term schedule, provided public information of the forecasted real time status (ETA), with status information, for the completion time of arrival at berth. The running forecast should be accomplished as soon as safe and feasible after operational decisions are made impacting the completion time, and be time and date stamped.
- ERD ETA: a carrier or carriers shall also provide public information with forecasted real time status, with status information, for the time of arrival (ETA) at berth, five days in advance of arrival at berth, time and date stamped. This information shall be made publicly available by MTO to serve as the earliest receiving date (ERD) for export containers.
- Actual: the vessel of the carrier arrives at berth, time and date stamped.

Marine terminal cargo status recommendations include the following definitions:

- Available: the container has been released by the carrier and the container is capable of physically being moved from terminal. Time and date stamped, with final gate-out time and date stamped.
- Unavailable: the container cannot be moved for any other reason. Time and date stamped.
- On hold: the container cannot be moved pending government inspection. In addition to a time and date stamp indicating the time of change of status, in the event of the container inspection being off-terminal a time and date stamp for gate-out/gate-in and location of the inspection site.
- Cargo handling: the container cannot be moved pending cargo handling/stuffing and stripping/consolidation. In addition to a time and date stamp indicating the time of change of status, in the event of the container handling being off-terminal a time and date stamp for gate-out/gate-in and location of the cargo handling site.
- Demurrage: status of information on commencement of free time and any change to demurrage status, time and date stamped.

Appendix 1.1 - Ocean Carriers Recommendations

Open facing information to provide public information through API for ocean transport:

Voyage information – information related to the loading of vessels to be provided on a planned, estimated real time basis (ETA) and actual basis. Recommendations include the following:

- Planned: a carrier or carriers formulates master and long-term schedule that provided public information three months in advance of any voyage with real time information of notice of blanked or delayed sailings time and date stamped, in the event of a delayed sailing, the ETA of the new departure.
- Estimated (ETA): a carriers or carriers, consistent with a long-term schedule, provide public information of the forecasted real time status, with transportation status information, for the completion time of arrival at berth. The running forecast should be accomplished as soon as safe and feasible after operational decisions impacting the completion time, and be time and date stamped.
- Estimated Earliest Receiving Date: a carrier or carriers shall also provide public information with forecasted real time status, with transport event status information, five days in advance of arrival at berth to any terminal planned for service. The terminal shall also make this information publicly available, and this shall serve as the earliest receiving date (ERD) at the terminal. Publicly available carrier and terminal ERD information shall be time and date stamped.
- Actual: the vessel of the carrier arrives at berth, time and date stamped.

Ocean carrier vessel voyage information – vessel IMO number; ISO country code of departure; UN locations and facility identification for departure; planned and ETA of all arrival port calls with ISO Country Code and UN locations and facility identification for arrival.

- **Transport event status** – position information related to the status of transport of the vessel from the commencement of the voyage on a real-time basis. To be accompanied with vessel operating status as regular, slow speed, idling or anchorage, at berth outside of the U.S. with status of arrival and ETA for departure from berth; reasons for delay provided pursuant to the SMDG (“Ship Message Design Code”) Delay Reason Code.
- **Port of discharge events** – a carrier or carriers shall provide status information related prior to commencement of the unloading/loading of vessel which shall be described under one of the four MTDS lexicon described categories of port call phases, as either: in-bound, shifting, alongside, or outbound.
- **Unloading/loading at berth events** – a carrier or carriers shall provide actual real-time notice of unloading and loading while at berth consistent with MTO information on loading and unloading, or by providing access to MTO information.
- **Subsequent planned port calls** – a carrier or carriers shall provide the same planned, estimated, and actual information related for each round-trip voyage until completion of the journey.
- **Ocean carrier open and closed face information on status of cargo while in subsequent possession of MTO’s and intermodal rail carriers** – a carrier or carriers shall provide consistent information on cargo status as provided by the subsequent MTO service provider or intermodal rail carrier that is in possession of the cargo or provide direct access to the MTO or rail carrier cargo status information.

[Appendix 1.2 - Marine Terminal Operator Recommendations](#)

Open Facing Information to be supplied by Marine Terminal Operators:

- **Earliest receiving date (ERD)** - a Marine Terminal Operator (MTO) shall make publicly available information provided by a carrier or carriers or provide data consistent from a carrier or carriers that shall serve to provide notice to cargo of the earliest receiving date (ERD) for any ocean carriers that will provide scheduled service to an MTO berth five days from the carriers real-time estimated (ETA) arrival to berth. Any change to availability for cargo delivery caused because of issues related to terminal operating requirements shall be made publicly available by 12 pm the preceding day of business. Information related to change of status of an ERD shall be time and date stamped.
- **Notice of commencement and ending of loading/unloading** – a MTO shall make publicly available actual real time information on carrier arrival by vessel name and IMO number; ISO country code of departure with real time information on the commencement of loading and unloading operations and the end time for those operations.

- **On-dock rail departures** – a MTO shall make publicly available actual real time information within 12 hours of scheduled local work related to the loading and unloading of an intermodal train consist, and estimated EST on departure.
- **Notice of MTO availability and operating requirements** – a MTO shall make publicly available information on access to its facility for import, export and empty containers, including information related to any operational changes at the facility that impede or enhance the ability to pick up or deliver containers to or from the facility. This information should be provided daily and posted 12:00 pm the preceding day of business. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped. Specific information that should be made publicly available is as follows:
 - **Appointments process:** a MTO shall make publicly available information on the availability of appointments by 12:00 pm the preceding day of business. The information should clearly define the process of securing, altering, or cancelling an appointment and any other business process attendant to the use of the appointment system. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.
 - **Terminal access:** a MTO shall make publicly available information on the availability of appointments by 12:00 pm the preceding day of business. This information should clearly define the process of securing access into the terminal. This should clearly define restriction on access related to policies restricting cargo movement due to dual use restrictions, restrictions on the return of empty containers or other policies that restrict access into the terminal. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.
 - **Intermodal equipment:** a MTO shall make publicly available information on restrictions on access to the terminal based on the availability or non-availability of intermodal equipment necessary for movement or handling cargo, by 12:00 pm the preceding day of business. This information should clearly define restrictions or the availability of access to intermodal chassis, or equipment for refrigeration storage, or other service restrictions that could impede cargo handling in the terminal on access to intermodal equipment or services necessary to move containerized cargo. To the extent that a third party provides this service the MTO shall provide the same information as provided by the third party, or alternatively provide direct access to the information from the third party. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.
 - **Off-site storage or special operating conditions:** a MTO shall make publicly available information on unique or special operational conditions requiring special operating procedures for access to a terminal or cargo at a terminal caused by force majeure or non-routine operational events. This information should clearly define the operational

requirements being used to address the handling of cargo. To the extent that a third party provides address the changes to regular operation the MTO shall provide the same information as provided by the third party, or alternatively provide direct access to the information from the third party. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.

Closed Facing information on cargo status during MTO custody:

- **Closed facing information** – is data that is business confidential available to the transportation customer and is encrypted and protected by a pin or other security system and accessible only to those parties legally entitled to access the data. In the case of a terminal this will be primarily ocean carriers, shippers and agents representing shippers.
- **Status of cargo during MTO custody** – a MTO shall ensure that any party entitled to receive the following closed facing information on cargo status of each container in the terminal. Generally, each container will be classified in only one of the following four status categories noted below, status and notice of status should be time and date stamped and retained available consistent with open facing publication requirements (made available for up to three months and stored for one year). Categories of status are as follows:
 - **Available:** is when the container has been released by the carrier and is capable of physically being moved from terminal;
 - **Unavailable:** is the default designation when the container cannot be moved for any other reason and is not in any other status;
 - **On hold:** is when the container cannot be moved pending government inspection. In addition to a time and date stamp indicating the time of change of status, in the event of the container inspection being off-terminal a time and date stamp for gate-out/gate-in and location of the inspection site; and/or
 - **Cargo handling:** is when the container cannot be moved pending cargo handling/stuffing and stripping/consolidation. In addition to a time and date stamp indicating the time of change of status, in the event of the container handling being off-terminal a time and date stamp for gate-out/gate-in and location of the cargo handling site.
- **Status of free time and demurrage during MTO custody of cargo** – a MTO shall ensure that any party entitled to receive closed facing information on cargo status is entitled to receive information on the amount of free time, commencement of demurrage, and any enhanced demurrage payment for each container in the terminal. Notice of status should be time and date stamped and retained available consistent with open facing publication requirements (made available for up to three months and stored for one year).

Appendix 1.3 - Port Operations Coordination Recommendations

General information and applicability:

- **Applicability** – a U.S. port authority, who handles, or whose terminal tenants handle over 250,000 TEU's of import, export, and empty containers in any one year, would establish a Ports Operations Coordination (POC) process. The POC process shall include the following two elements as enumerated below: 1) POC MTDS information and 2) POC coordination.
- **Port coordination** – a U.S. port may choose to coordinate with another nearby port.
- **Voluntary application of MTDS** – a U.S. port not subject to MTDS requirements may apply to the FMC to be made subject to MTDS requirements.
- **Best information available** – data will be provided from the best available source of information, and the best source of information resides with the operator or party to the journey is in actual possession of the cargo. To the extent that a party wants to provide information when it is not in actual possession of the cargo, the party will provide consistent information as provided by the operator or party that has possession of the cargo, or alternatively, provided direct access to the party in possession of the cargo.

POC MTDS Information:

- The primary intent in the establishment of the POC is for coordination in the transmission of information of ocean carriers, MTO's and intermodal rail carriers. The POC is to provide a central repository of data affecting port and inland terminals and other facilities that service affected ports. The focus will be to coordinate the best available data from ocean and intermodal carriers, and marine terminals, as follows:
- **Open facing information to be supplied by POC from:**
 - Carriers – the POC MTDS should provide open face publicly available information from all carriers subject to MTDS requirements that intend to provide service at a terminal berth in their port.
 - MTOs – the POC MTDS should provide open face publicly available information from all MTO's subject to MTDS requirements that intend to provide service at a terminal berth in their port.
 - Intermodal rail carriers - the POC MTDS should provide open face publicly available information from all intermodal rail carriers, subject to MTDS requirements, that carry inland intermodal containers that were provided service at a terminal berth in their port.
 - Special operating conditions – the POC MTDS should provide open face publicly available information to inform the shipping public to information to help alleviate

issues arising from force majeure events or other market factors that could impede normal cargo handling operations. The information should either be intended to alert to potential unusual conditions, or to inform of special operating practices that were being implemented to respond to the unusual conditions. This information should be formulated pursuant to the POC coordination process.

- POC berthing information – the POC MTDS should open face publicly available information to ocean carriers to inform them on the best source of information to secure information on any potential delay in securing berth availability. This information is to be used by the carrier in formulating their ETA to berth forecasted arrival time.
- Intermodal service providers – the POC MTDS should provide open face publicly available information from all intermodal service providers pursuant to the POC coordination process.

POC Coordination Process:

General information:

The POC process is intended to require the facilitation of open transmission of information from ocean carriers, intermodal carriers, and the MTOs that handle containerized cargo through their port complex, to facilitate access to information related to securing berth access and related services for ocean carriers, and to provide port-wide information related to special operating conditions. In addition to help coordinate services provided to assist in the movement of intermodal cargo through the supply chain, the MTDS would propose the issuance of guidelines for port service coordination as outlined below.

POC Coordination Process:

- Commission guidelines – Given the unique challenges in managing services at each U.S. port, and the wide variety of differences between ports, the MTDI recommendation calls for, at present, the implementation of voluntary guidelines for each port to consider as they implement MTDS standards for in-transit visibility and transparency. Each port has different needs for coordination, for instance, an operating port functioning as an MTO will have completely different need for coordination from a landlord port, and similarly a smaller port has much different challenge from a larger port complex. Accordingly, the MTDI recommendation, at present, will call for each port subject to the requirements of the MTDS to exercise good faith efforts to implement a POC coordination process responsive to the needs of their port, and the implementation of FMC guidelines port coordination.
- Elements of POC process guidelines:
 - Establishment of relevant and pertinent stakeholders impacting intermodal movement of cargo to provide advice on coordinating intermodal services. This should include, but is not limited to; ocean carriers, MTO's, intermodal rail carriers, longshore labor,

drayage trucking companies, intermodal equipment service providers, major BCO's and shipper intermediaries using the port complex, major off-terminal storage or handling sites, transloading facilities warehousing or other distribution centers directly impacting and intermodal container service through the port complex.

- Establishment of a protected and confidential process to consider issues impacting the adequate and efficient movement of intermodal container service, with respect to information on those intermodal container services directly impacting operations through the port.
- Issues of consideration and advice through the POC process should include, but is not limited to:
 - Forecasted and projected carrier and cargo service levels.
 - Adequacy of drayage trucking and intermodal equipment.
 - Policies related to making essential information publicly available from third party service providers of intermodal services (i.e., warehouses, storage facilities, distribution centers).
 - Recommendations and advice for changes to policies impacting cargo handling operations.
 - Equipment returns policies.
 - Response to special conditions or force majeure events.
 - Other market factors that could impede normal cargo handling operations.
 - Shipper obligations/best practices.
- Special operating conditions – the POC shall provide open face publicly available information to inform the shipping public of information to help alleviate issues arising from force majeure events or other market factors that could impede normal cargo handling operations. The information should either be intended to alert to potential unusual conditions, or to inform of special operating practices that were being implemented to respond to the unusual conditions. This information should be formulated with advice and pursuant to the POC coordination process.

Appendix 1.4 - Intermodal Rail Carriers Recommendations

General information and applicability:

- **Applicability** – MTDS data requirements would be applicable to intermodal rail carriers that provide intermodal transportation from a U.S. port that is subject to MTDS, to points inland under a through bill of lading issued by an ocean carrier. Intermodal rail carriers and the rail ramps/terminals that provide transportation service to and from a U.S. port subject to MTDS requirements if they imported or exported from that port and handle over 250,000 TEU's annually on a cumulative basis to an inland rail ramp/terminal.

Open facing information to provide for intermodal rail:

- **Train departures** – A intermodal rail carriers, subject to the MTDS, will post information within 12 hours of scheduled local work related to the loading and unloading of an intermodal train consist, and estimated EST on departure.
- **Train arrivals** – a intermodal rail carrier will make publicly available information within 12 hours of projected scheduled local work related to the loading and unloading of an intermodal train consist, and estimated EST of arrival.
- **Notice of rail ramp/terminal availability and operating requirements** – a rail ramp/terminal, providing services to an ocean carrier under a through bill of lading from a MTDS covered port, shall make publicly available information on access to its facility for import, export and empty containers, including information related to any operational changes at the facility that impede or enhance the ability to pick up or deliver containers to or from the facility. This information should be provided daily and posted 12:00 pm the preceding day of business. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped. Specific information that should be made publicly available is as follows:
 - **Appointments process:** a rail carrier, subject to the MTDS, shall make publicly available information on the availability of appointments at their rail ramp by 12:00 pm the preceding day of business. The information should clearly define the process of securing, altering, or cancelling an appointment and any other business process attendant to the use of the appointment system.

Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.

- **Terminal access:** a rail carrier, subject to the MTDS, shall make publicly available information on the availability of appointments by 12:00 pm the preceding day of business. This information should clearly define the process of securing access into the rail ramp. This should clearly define restriction on access related to policies restricting cargo movement due to dual use restrictions, restrictions on the return of empty containers or

other policies that restrict access into the terminal. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.

- **Intermodal equipment:** a rail carrier, subject to the MTDS, shall make publicly available information on restrictions on access to the terminal based on the availability or non-availability of intermodal equipment necessary for movement or handling cargo, by 12:00 pm the preceding day of business. This information should clearly define restrictions or the availability of access to intermodal chassis, or equipment for refrigeration storage, or other service restrictions that could impede cargo handling in the terminal on access to intermodal equipment or services necessary to move containerized cargo. To the extent that a third party provides this service the rail carrier shall provide the same information as provided by the third party, or alternatively provide direct access to the information from the third party. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.
- **Off-site storage or special operating conditions:** a rail carrier, subject to the MTDS, shall make publicly available information on unique or special operational conditions requiring special operating procedures for access to a terminal or cargo at a terminal caused by force majeure or non-routine operational events. This information should clearly define the operational requirements being used to address the handling of cargo. To the extent that a third party provides address the changes to regular operation the MTO shall provide the same information as provided by the third party, or alternatively provide direct access to the information from the third party. Any changes to this information should be made publicly available on a real-time basis as soon as safe and feasible after operational decisions has been made to change policy, and time and date stamped.

Closed facing information on cargo status during rail carrier custody:

- **Closed facing information** – is data that is business confidential available to the transportation customer and is encrypted and protected by a pin or other security system and accessible only to those parties legally entitled to access the data. In the case of a rail carrier this will be primarily ocean carriers, shippers and agents representing shippers.
- **Railroad Transport Events** – a railroad carrier shall provide closed facing information on position information related to the status of transport of the railroad from the commencement of the voyage on actual real-time basis with real-time EST for arrival at the intermodal terminal.
- **Status of cargo during rail carrier custody** – a rail carrier shall ensure that any party entitled to receive the following closed facing information on cargo status of each container in the terminal. Generally, each container will be classified in only one of the following four status categories noted below, status and notice of status should be time and date stamped and retained available consistent with open facing publication requirements (made

available for up to three months and stored for two years). Categories of status are as follows:

- **Available:** is when the container has been released by the carrier and is capable of physically being moved from terminal.
- **Unavailable:** is the default designation when the container cannot be moved for any other reason and is not in any other status.
- **On hold:** is when the container cannot be moved pending government inspection. In addition to a time and date stamp indicating the time of change of status, in the event of the container inspection being off-terminal a time and date stamp for gate-out/gate-in and location of the inspection site.
- **Cargo handling:** is when the container cannot be moved pending cargo handling/stuffing and stripping/consolidation. In addition to a time and date stamp indicating the time of change of status, in the event of the container handling being off-terminal a time and date stamp for gate-out/gate-in and location of the cargo handling site.
- **Status of free time and demurrage during intermodal rail carrier custody of cargo –** a rail carrier, subject to the MTDS, shall ensure that any party entitled to receive closed facing information on cargo status is entitled to receive information on the amount of free time, commencement of demurrage, and any enhanced demurrage payment for each container in the terminal. Notice of status should be time and date stamped and retained available consistent with open facing publication requirements (made available for up to three months and stored for two years).

Appendix 1.5 – Proposed RFI 3

AGENCY:

Federal Maritime Commission.

ACTION:

Request for information.

SUMMARY:

The Federal Maritime Commission (Commission) seeks public comment on questions related to maritime data transmission, accessibility, and accuracy. Information received in response to this request will supplement information gathered during the public meetings of the Maritime Transportation Data Initiative and to better inform the Commission about commercial activities.

DATES:

Submit comments on or before _____.

ADDRESSES:

The Commission will collect comments through the Federal eRulemaking Portal at www.regulations.gov under Docket No. _____. Please refer to the “Public Participation” heading under the **SUPPLEMENTARY INFORMATION** section of this notice for detailed instructions on how to submit comments, including instructions on how to request confidential treatment.

FOR FURTHER INFORMATION CONTACT:

David Eng, Secretary; Phone: (202) 523-5725; Email: Secretary@fmc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

Cargo in international trade moves between the control of numerous entities. While some key data elements are readily shared between supply chain participants, the lack of timely and accurate access to some data elements can lead to inefficiencies, as was seen during the COVID-19 pandemic. Additionally, the lack of data standardization reduces the ability to move cargo in an effective way.

Improved communication and data availability could ease the flow of data and potentially provide positive results including fewer and shorter duration instances of congestion; quicker movement of import and export shipments; assessment of fewer storage fees; and a reduction in in cargo holds thereby improving supply chain effectiveness, efficiency and reducing costs.

II. Request for Information

The purposes of the Shipping Act as stated in [46 U.S.C. 40101](http://www.usc.gov/title-46/chapter-1/subchapter-1/section-40101) include ensuring an efficient, economical ocean transportation supply system. The data challenges of the supply chain were examined during the Maritime Transportation Data Initiative (MTDI) led by Commissioner Carl W. Bentzel. A report (MTDI draft report) summarizing the information was released by Commissioner Bentzel in May 2023.^[1] The Commission seeks additional information from the

shipping public to expand the information gathered from the MTDI sessions and address additional topics related to data availability, accuracy, and exchange.

During the MTDI sessions, Commissioner Bentzel heard comments from many supply chain participants regarding the methods that are used to transmit data between parties involved in moving ocean containers. Participants discussed frequently having to email information regarding the movement and availability of cargo or needing to visit a website to check the status of containers/shipments. In some cases, the only way to know the status of cargo was to call various supply chain service providers and ask for information about specific shipments. These were all presented as examples of common, but inefficient, ways to learn the status of cargo. MTDI session participants also discussed the industry being slow to move to more accurate and efficient methods for data transmission, such as Electronic Data Interchange (EDI) and Application Programming Interface (API), which are more timely and often more accurate.

To build on the information gathered during these meetings, the Commission is seeking public comments on the following questions related to maritime data transmission, accessibility, and accuracy. The purpose of these questions is to seek information about data sharing practices, not information about specific customers/partners and commenters should not name specific customers/partners when responding.

The Commission had previously requested public information related to the MTDI sessions and the MTDI draft report, [provide implementation of a track and cites], and the questions included today will be the final public comments to provide the basis for the final report. In particular, the Commission is interested in public comment on report recommendations on certain definitions integral to the implementation of a track and trace methodology and general policy issues surrounding the report proposals.

The Commission has segmented the questions into categories specific to certain stakeholders but is also interested in hearing from the public who may respond to any or all of the questions.

Intermodal Transportation Service Providers and Shippers (e.g., Ocean Carriers, Marine Terminal Operators (MTOs), Licensed Motor Carriers (LMCs), Railroad Operators Who Transport International Maritime Cargo, Transportation Labor and Port Authorities, Other Intermodal Service Providers)

1. The MTDI draft report includes recommendations for the establishment of a lexicon in order to implement a publicly available real-time track and trace system and harmonize the system of handling cargo, as such, the definitions would govern the application of a reliable real-time track and trace system and harmonize cargo handling practices. Please feel free to comment on any or all of the following definitions included in the MTDI draft report:

a. Best information – “The best source of information on intermodal shipping is the party in possession of the container. Information made available to the public should be sourced from the best available source. If a third party not in possession of a container provides information on intermodal shipping it should either provide direct access to the party in possession of the container, or consistent with information to the party in possession of the container.”

b. Blank sailing – “Occurs when a an already planned voyage is cancelled. In this case the voyage number is not retained, and planned port calls are “blanked”, and publicly noticed as a planned activity as soon as safely feasible given operational safety.”

c. Demurrage – “Is a penalty charge that is assessed, by a terminal operator, for use of storage at the terminal beyond an allocated period of free time for pick-up. To the extent that a 3rd party collects demurrage on behalf of a terminal it shall be consistent with the amount demurrage charged by the terminal operator.”

d. Detention – “Is a penalty charge that is assessed, by a carrier, for use of a container, beyond an allocated period of free time for container return. To the extent that a 3rd party collects detention on behalf of a carrier it shall be consistent with the amount charged by the carrier for use of its container.”

e. Earliest Return Date – “The earliest return date (ERD) is an actual and estimated event where a carrier provides publication and notice to a terminal for publication that the carrier is estimating real time arrival at a terminal berth within five days. The Terminal shall make this information available to provide terminal access information available to exporters. Any change to availability caused because of issues related to terminal operating requirements shall be made publicly available by 12 pm the preceding day of business.”

(i) In particular, should this term be changed to Earliest Receiving Date, and should the five day time frame be amended to add extra time to reflect the cut-off time mandate by cut-off.

f. Estimated (event) – “A carrier's (ETA) forecasted real time status and completion time of an event that is covered by a confirmed booking but has not yet been completed. The estimated event is a dynamic value, which can change based on the running forecast of the completion time. The running forecast should be accomplished as soon as safe and feasible after operational decisions impacting the completion time, and be time and date stamped.”

g. Notice of availability – “An event occurring at a terminal when the carrier has released cargo, and the cargo is physically capable of being gated out.”

(i) In particular, should this term be changed to require the terminal to also release the cargo, and should there be additional clarification on what it means to be physically capable of being gated out.

h. Port call events – “Planned, estimated and actual port call events define the different time elements in the planning cycle of a port call event. For example:

- Planned: a carrier or carriers formulates Master and long-term schedule that provided public information three months in advance with real time information of notice of blanked sailings time and date stamped.
- Estimated: a carriers or carriers, consistent with a long-term schedule, provided public information of the forecasted real time status, with status information, for the completion time of arrival at berth. The running forecast should be accomplished as soon as safe and feasible after operational decisions impacting the completion time, and be time and date stamped. Carriers shall also provide public information with forecasted real time status,

with status information, for the completion time of arrival at berth, five days in advance for public notification at the terminal berth will arrive at time and date stamped.

- Actual: the vessel of the carrier arrives at berth, time and date stamped.”, and,

Port call phases – “A time and date stamped indicator that shows a vessel’s status within the four main phases of a port call. This term is accompanied by one of the following descriptors:

- Inbound: indicates that the vessel is currently in the inbound phase which covers the vessel's physical movement from approach to (anchor) berth.
- Outbound: indicates that the vessel is currently in the outbound phase which covers the vessel’s physical movement from (anchor) berth to its next destination.
- Shifting: indicates that the vessel is currently in the shifting phase which covers the vessel’s physical movement from (anchor) berth to (anchor) berth.
- Alongside: indicates that the vessel is currently in the alongside phase which covers the vessel's time while at berth from first line secured till the last line released.

i. Publicly available – “Publicly available information is information that is available to the public through an Automated Protocol Interface (API). This information should be time and date stamped, responsibly protected, and remain available for 3 months from the date it was posted and stored for up to 2 years. Publicly available information should be classified as either Open Facing Information or Closed Facing Information as follows:

- Open Facing Information is information that should be made available through an API without regard to restriction.
- Closed Facing Information is information that is usually protected information that should be made available through an API to an entity that is legally entitled to receipt of information (i.e., in privity of contract, for example, a terminal should make terminal cargo status information available to carriers/shippers and shipper agents upon request). “

j. Terminal cargo status – “The status of containers in a terminal should be time and date stamped and classified in one of the four status requirements described below. Information should be made publicly available to any legally authorized entity upon request (carrier, shipper, or shipper’s agent). Terminal cargo status should include time and date status on the commencement and duration of free time, time and date stamped, and information on commencement of free time and any change to demurrage status, time and date stamped. Terminal status requirements are as follows:

- Available: the container has been released by the carrier and is capable of physically being moved from terminal.
- Unavailable: the container cannot be moved for any other reason.
- On hold: the container cannot be moved pending government inspection. In addition to a time and date stamp indicating the time of change of status, in the event of the container inspection being off-terminal a time and date stamp for gate-out/gate-in and location of the inspection site.

- Cargo handling: the container cannot be moved pending cargo handling/stuffing and stripping/consolidation. In addition to a time and date stamp indicating the time of change of status, in the event of the container handling being off-terminal a time and date stamp for gate-out/gate-in and location of the cargo handling site.”

2. Should ocean carriers be able to shut down publicly available information on location and transits to protect the safety of life of crew?

3. The U.S Coast Guard regulates cyber security protections for U.S. maritime facilities and U.S.-flag vessels. Should the Commission determine that certain information requirements be made mandatory should additional requirements be considered for cyber security protection.

4. The MTDI draft report recommends information to be classified as either open-faced information which is information that is made publicly available through an API, or close-faced information accessible be made available through an API to an entity that is legally entitled to receipt of information (i.e., in privity of contract, for example, a terminal should make terminal cargo status information available to carriers/shippers and shipper agents upon request). This is in order to protect confidential information on cargo between competitors, and also to help ensure that cargo status information is not used to impact coastwise labor negotiations.

Should the Commission consider mandating confidentiality, similar to Commission regulations mandating confidentiality of service contracts to protect against abuses?

5. The Commission requires public information to be made available for the tariffs of ocean carriers, marine terminal operator schedule information, and most recently information ocean carrier and marine terminal operator information related to disputing detention and demurrage charges. The MTDI Report recommendation is that open-faced information would be required to be made publicly available through an API and time and date stamped to preserve data change information. Is this sufficient to ensure that this data can be freely transmitted and used by the secondary information/technology market, and is it sufficient to be able to be used to assess the veracity of date reporting?

6. To marine and railroad intermodal terminal operators, the MTDI Draft Report recommendation recommends a requirement for harmonizing cargo status reporting while in a terminal. This information is classified to be shared confidentially with ocean carriers and shippers/shipper agents. Can the recommended cargo status information requirements be shared without major change to existing marine or railroad intermodal terminal operating systems (TOS)?

7. To port authorities and intermodal service providers, the MTDI Draft Report recommendation does not recommend implementation of standards for Port Operations Coordination, in large part because of the many differences between port structure and operations (e.g., big/small, operating/landlord). However, the draft report recommendations would require ports to function as repositories of information for port ocean carrier, marine terminal and intermodal rail services providers. It also recommends guidelines for Port Operations Coordination. Please comment on this recommendation.

Importers/Exporters/Maritime Technology (e.g., BCOs, Shippers)

1. Please attempt to quantify the reliability of existing data to allow your company to assess and engage in planning for transportation 4 to 6 months out?

2. Please attempt to quantify the reliability of existing data to allow your company to assess and engage in planning for transportation to assess actual vessel arrivals at berth versus estimated arrivals at berth provided by ocean carrier sources of data?

3. Increasingly, ocean carriers are implementing smart technology to allow real-time tracking of containers through the life of the entire movement. Implementation of smart container technology is currently hampered by a lack of reliable information on shipping schedules, and real-time estimated arrivals and departures from berths.

Please provide any indication of what this data gap means to your system of inventory management or to general practices for the efficient movement of cargo?

III. Public Participation

How do I prepare and submit comments?

You may submit comments by using the Federal eRulemaking Portal at www.regulations.gov under Docket No. _____ . Please follow the instructions provided on the Federal eRulemaking Portal to submit comments.

How do I submit confidential business information?

The Commission will provide confidential treatment for identified confidential information to the extent allowed by law. If you would like to request confidential treatment, pursuant to [46 CFR 502.5](#), you must submit the following, by email, to Secretary@fmc.gov:

- A transmittal letter requesting confidential treatment that identifies the specific information in the comment for which protection is sought and demonstrates that the information is a trade secret or other confidential research, development, or commercial information.
- A confidential copy of your comment, consisting of the complete filing with a cover page marked “Confidential-Restricted,” and the confidential material clearly marked on each page.
- A public version of your comment with the confidential information excluded. The public version must state “Public Version—confidential materials excluded” on the cover page and on each affected page and must clearly indicate any information withheld.

Will the Commission consider late comments?

The Commission will consider all comments received before the close of business on the comment closing date indicated above under **DATES**. To the extent possible, we will also consider comments received after that date.

How can I read comments submitted by other people?

You may read the comments received by the Commission at www.regulations.gov under Docket No. _____ .

By the Commission.

David Eng,

Secretary.