

# NOTICE

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
Air Traffic Organization Policy

N JO 7210.796

**Effective Date:**  
December 29, 2011

**Cancellation Date:**  
July 26, 2012

**SUBJ:** Traffic Management Advisor (TMA)

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- 1. Purpose of This Notice.** This notice amends multiple paragraphs in the Federal Aviation Administration (FAA) Order JO 7210.3, Facility Administration, to establish procedures that air traffic controllers must comply with while dealing with rippling and TMA tabular data associated with metering in the operational environment.
- 2. Audience.** This notice applies to FAA air traffic control facilities that participate in metering. The facilities include Philadelphia and New York TRACONS, and all air route traffic control centers (ARTCC).
- 3. Where Can I Find This Notice?** This notice is available on the MyFAA employee Web site at [https://employees.faa.gov/tools\\_resources/orders\\_notices/](https://employees.faa.gov/tools_resources/orders_notices/) and on the air traffic publications Web site at [http://www.faa.gov/air\\_traffic/publications/](http://www.faa.gov/air_traffic/publications/).
- 4. Explanation of Policy Change.** TMA is the technology and methods used for adjusting demand/capacity imbalances at select Operational Evolution Plan (OEP) airports, departure fixes, and points across the National Airspace System (NAS). Changes incorporate procedures and responsibilities for the use of time-based flow management (TBFM) into FAA Order JO 7210.3. The changes provide specific directions to facilities on where to publish display requirements for TMA metering lists and/or data block information. It delineates the parameters air traffic controllers must adhere to when using adjacent center metering (ACM) and TMA to accomplish traffic management initiatives. In addition, the change incorporates the responsibilities of facilities, personnel, and areas that support the metering process.
- 5. Procedures.** Add the following paragraphs to read as follows:
  - 6-1-7. DISPLAY OF TRAFFIC MANAGEMENT ADVISOR (TMA) INFORMATION**
    - a.** Configure TMA delay information for single center metering (SCM) or adjacent center metering (ACM) to display TMA schedule information on the main display monitor (MDM).
    - b.** Use metering lists only when deemed necessary.
    - c.** Do not use metering lists if they limit participation in metering initiatives.

## **Section 23. Traffic Management Advisor (TMA)**

### **17-23-1. PURPOSE**

This section establishes procedures and responsibilities for the use of Traffic Management Advisor (TMA).

### **17-23-2. DEFINITIONS**

**a.** Adjacent Center Metering (ACM) – An extension of SCM that provides time-based metering capability to neighboring facilities. There are three categories of ACM processing and control at a facility:

1. Controlling facility – The TMA unit that exercises control over SCM and/or ACM settings and the relevant metering operation.
2. Limited Control – The ability to manage specific ACM settings and activities for relevant metering operations.
3. Non-Controlling – A facility that only has monitoring capability.

**b.** Coupled Scheduling – An automation process that adds additional meter-points and allows the linking of time-based flow management (TBFM) systems. This results in more optimal balancing and distribution of delays over a greater distance from the airport or meter point.

**c.** Enhanced Departure Capability (EDC) – Automates a traffic management unit's departure function to ARTCC exit points or an adapted meter point in space.

**d.** Metering – Any time the Traffic Management Coordinator (TMC) is using the TMA tool for decision support. TMCs may implement traffic management initiatives such as scheduling departures or displaying TMA times to controllers in order to manage demand.

**e.** Rippling – The recalculation of TMA generated frozen scheduled times of arrival (STA) resulting from a manual action at the controlling graphical user interface (GUI). Rippling also commonly referred to as "rescheduling" or "reshuffling," can be executed independently but is normally associated with changes to TMA configurations or settings.

**f.** Single Center Metering (SCM) – An application of the TMA tool that provides traffic TMCs with the ability to view and manage arrival flows to an ARTCC's internal airports.

**g.** Time-Based Flow Management (TBFM) – The technology and methods of balancing demand and capacity utilizing time.

**h.** Traffic Flow Management (TFM) – The processes and initiatives a TMC uses to balance air traffic demand with system capacity.

**i.** Traffic Management Advisor (TMA) – A comprehensive, automated tool used for planning/implementing efficient flight trajectories (a suite of ground based decision support tools capable of computing strategic trajectories and solutions for improved airport efficiencies and en route constraints).

### **17-23-3. RESPONSIBILITIES**

**a.** The ATCSCC must:

1. Be the final decision authority for TMA related operations and initiatives.
2. Manage the equity of overall system delays throughout the NAS.
3. Host/participate in ACM discussions, support all ACM and other time based metering initiatives. Collaborate on an exit strategy when ACM is no longer required.
4. Include the status of any pertinent TMA-related information on the planning telecons and on the Operational Information System (OIS).

5. Prioritize TBFM activity based on NAS and/or facility constraints.
  6. Inform impacted facilities of relevant information that would influence arrival metering decisions or en route EDC operations.
  7. Establish and maintain multi-facility communications, when necessary, for ACM operations.
  8. Log ACM events and other TMA activities, as appropriate, in the NTML.
  9. Serve as a repository for TBFM information and TMA reference materials.
- b.** All TMUs with controlling TMA systems must:
1. Determine appropriate TMA settings.
  2. Ensure TMA settings are entered, current, and coordinated.
  3. Monitor TMA to determine metering timeframes and coordinate start/stop times and delays with the ATCSCC and affected facilities.
  4. Communicate meter start/stop information to operational areas, operating positions, participating facilities, and enter into NTML.
  5. Turn on sector meter list as coordinated.
  6. Monitor internal facility metering delays and initiate actions, as appropriate, when values exceed or are projected to exceed delays that can be absorbed by control sectors. Notify the FLM or affected areas/sectors of actions taken and expected outcomes.
  7. Monitor multi-metering scenarios. Advise ATCSCC if time based metering (TBM) to multiple airports or fixes is impacting or projected to impact sector or facility level operations.
  8. Coordinate changes to the metering plan or updates to the TMA schedule with the ATCSCC and affected facilities.
  9. Coordinate internally with affected areas and with any ACM supporting facilities before taking action to update the TMA schedule.
  10. To the extent possible, avoid making any changes in TMA that cause a global schedule change (rippling) during metering operations. Advise the ATCSCC, affected facilities, and sectors before rippling.

**NOTE-**

*Coordinate and turn off the sector meter list when rippling is necessary. Enable the metering list when rippling is complete.*

11. Use TMA to determine release times for internal departures to a metered airport.
  12. Monitor arrival and departure flows for potential metering actions/changes.
  13. Monitor internal and adjacent facility metering compliance and take appropriate action.
  14. Coordinate and turn off sector meter list when metering times are no longer in effect.
- c.** Supporting TMUs performing ACM or Coupled Scheduling must:
1. Determine appropriate local TMA settings.
  2. Ensure TMA settings are entered, current, and coordinated.
  3. Coordinate with controlling facility and ATCSCC, as appropriate.
  4. Communicate meter start/stop information to operational areas, operating positions, and participating facilities.
  5. Turn on sector meter list as coordinated.

- 6. Use TMA to determine release times for internal departures to the metered airports subject to APREQ procedures.
- 7. Monitor arrival and departure flows for potential metering actions/changes.
- 8. Coordinate changes to the metering plan or updates to the TMA schedule with the ATCSCC and affected facilities.
- 9. To the extent possible, avoid making any changes in TMA that cause a global schedule change (rippling) during metering operations. Advise the ATCSCC, affected facilities, and sectors before rippling.

**NOTE-**

*Coordinate and turn off the sector meter list when rippling is necessary. Enable the metering list when rippling is complete.*

- 10. Monitor internal and upstream compliance.
- 11. Turn off the sector meter list when metering has been completed.

**6. Distribution.** This notice is distributed to the following ATO service units: Terminal, En Route and Oceanic, System Operations, and Mission Support; ATO Safety; the Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

**7. Background.** One of the first steps in the Joint Planning and Development Office’s (JPDO) plans for the Next-Generation Air Transportation System (NextGen) and the OEP Flight Plan objectives is to develop and deploy a versatile, nationwide, time-based metering capability. JPDO and OEP plans document an end-to-end time based flow management system that provides a more efficient alternative to today’s miles-in-trail restrictions and ground stops. TMA is a comprehensive, automated method of planning efficient arrival trajectories from cruise altitude to the runway threshold. TMA increases situational awareness through its graphical displays, timelines, and load graphs. TMA trajectories are optimized for each aircraft to permit an accurate estimated time of arrival at an airport and provide scheduled times of arrival (meter times) that optimize the flow of traffic into a terminal area. Now that Phase 1 of the TMA development is complete, planning for the next generation of TBFM has begun. Phase 2 will include additional TMA airports, improve the functionality of TMA in support of ACM, TRACON Metering, EDC, and point-in-space metering.



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11-22-11  
Date Signed