U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Air Traffic Organization Policy

ORDER NUMBER JO 7110.315

Effective Date:
03/23/2012

SUBJ: Mobile Airport Traffic Control Tower Siting Criteria

1. PURPOSE OF THIS ORDER. This order provides Mobile Airport Traffic Control Tower (MATCT) Siting Criteria for planned and unplanned deployments supporting terminal services operations in accordance with the JO 7210.3, "Facility Operations and Administration," and the JO 6480.7, "Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control (TRACON) design policy."

2. AUDIENCE. This order affects selected Air Traffic Organization Offices in Washington Headquarters, Service Areas, Service Centers, William J. Hughes Technical Center, and Mike Monroney Aeronautical Center.

3. WHERE CAN I FIND THIS ORDER? This order is available on the MYFAA employee Web site at https://employees.faa.gov/tools_resources/orders_notices/.

4. BACKGROUND. The MATCT Siting Criteria augments information available in other related fixed, mobile, and temporary tower siting orders and handbooks. Where other related siting criteria guidance conflicts with those contained herein, apply the most prudent siting criteria to ensure optimum safety and operational performance.

5. IMPLEMENTATION. Consider the MATCT height, location, and orientation restrictions with airport controllers, and establish line-of-site operational view(s) for airport traffic pattern, final approach, runways, taxiways, and other controlled surfaces and airspace. Obstructed operational surfaces must be designated as either uncontrolled or nonmovement areas through a local agreement with airport authority in accordance with current Advisory Circular 150/ 5300-13, "Airport Design," Chapter 2, Paragraph 202f, and Chapter 6, Paragraph 609, referencing guidance on airport traffic control tower siting. For additional applicable guidance, reference the JO 6480.4, "Airport Traffic Control Tower Siting Process," and the JO 7210.3.

5.1 The MATCT may be used for air traffic operations in both public and private locations provided; Technical Operations and Terminal Services carefully consider applicable requests to determine the FAA available personnel, equipment, and service without jeopardizing either the FAA activities or interfering with gainful employment of competent non-Federal personnel.

The MATCT may be used:

a. To provide interim air traffic services during a move from an old to a new air traffic control facility.

b. When construction, maintenance, and equipment installation temporarily renders a fixed air traffic control facility either inoperative or uninhabitable.

c. During periods of natural emergencies (i.e., damaged by earthquake, wind, fire, and water).

d. During local, state, and national emergencies requiring interim air traffic services.

e. When changes in airport operations (i.e., fly-in, runway construction, etc.) requires the MATCT use to mitigate airspace conflicts as determined by a Safety Risk Management Panel (SRMP).

Note: Non-Federal personnel supporting air traffic operations involving civic events must be properly certified and rated in accordance with the 14 CFR Part 65, Subpart B. The MATCT is subject to emergency recall at any point of their non emergency deployment.

5.2 In case of an emergency requiring urgent air traffic service as cited in Paragraphs 5.1c and d of this order, the MATCT initial siting may include interim modifications based on sound judgment and on-site subject matter expertise. The MATCT initial location should be considered by airport authority, technical operations, local air traffic management, and safety representatives for optimal view of runways and airport movement areas. Technical Operations Engineering Services may conduct applicable safety analysis to determine subsequent relocation of the MATCT if required. Apply sections of Title 14 CFR Part 77, "Safe, Efficient Use, and Preservation of the Navigable Airspace," and the JO 7400.2, "Procedures for Handling Airspace Matters." Also consider standards for determining shielding in accordance with the JO 7400.2, Section 3, "Identifying/Evaluating Aeronautical Effects."

Note: Reference the JO 1920.5 "Technical Operations Services Field Incident Response (FIR)."

6. ROLES AND RESPONSIBILITIES.

6.1 Siting Team: The siting team members lead by a Terminal Services designated representative must comply with the JO 1000.37, "Air Traffic Organization Safety Management System," JO 1030.5, "Technical Operations Safety Management System," and JO 1000.40, "Air Traffic Organization Terminal Services Safety Management System, Roles and Responsibilities," when conducting safety risk management (SRM) for the MATCT. This team must, if circumstances permit, include representative(s) from each listed organization.

a. Service Area Terminal Planning and Requirements

b. Operations Support Group

c. Technical Operations Engineering Services

d. Airports Division

e. District Air Traffic

f. District Technical Operations

g. Airport Authority

h. Flight Standards District Office

i. Mission Support Services

j. Security, Office of Runway Safety and Terminal Safety Services

k. Spectrum Engineering

Note: If any listed representative cannot participate in the SRM activity consider Paragraph 7.

6.2 Risk Acceptance: Risk acceptance must comply with the FAA Safety Management System (SMS) Manual for site specific level of risk(s) identified.

Note: Previously approved siting locations complying with SMS can be used again for the MATCT if no siting criteria changes occurred.

6.3 Terminal Planning: Each Terminal Service Center planning representative is responsible for scheduling all the MATCT siting efforts within their corresponding service area. In addition, the MATCT deployment planning activities will be collaboratively accomplished with the Mobile Asset and Management Program (MAMP) Office and Terminal Safety and Operations Support (TSOS) Requirements Group to ensure safety, best practices, cost savings, and efficiency.

Note: When conflicting guidance is discovered, the MATCT designated on-site manager will coordinate operational resolution with appropriate stakeholders.

6.4 Technical Operations Engineering Services: Coordinates with all the MATCT organizations facilitating siting activities, authoring siting reports, and the implementation of, and adherence to, the SMS applicable policies and procedures to include coordinating all the NAS safety risk(s) mitigations with appropriate Terminal District Manager for acceptance. Assigned Technical Operations Engineering Services project engineer must provide any present and future airport construction notification with potential impacts to the MATCT proposed sites. The initial site survey conducted concurrently with planning activities will be used for assessing surrounding terrain, runways, taxiways, parking aprons, and determine how these factors could influence the MATCT operational feasibility. All collected information shall be made available to local Airport District Office, Airport Authority, and applicable Facility Manager. A physical site survey conducted by qualified Technical Operations personnel will be considered to either confirm or refute the MATCT proposed site location(s). The physical survey provides a final update opportunity to adjust equipment location, determine facility requirements, personnel access, generator backup power, commercial power, air/ground communications, telephone services (i.e., utilities), and restroom facilities. The physical survey is also part of the Safety Risk Management Document (SRMD), and must include this following information:

a. Descriptions of preferred sites (i.e., elevation, latitude, longitude, etc.).

b. Identification and mitigation of hazards including causes and potential outcomes.

c. Risk assessment for hazards to include severity of consequence and likelihood of occurrence using the Risk Matrix.

d. A comparison of the relative risk for the preferred sites.

e. A hazard analysis for each preferred site, including a documented safety record that contains a definition of controls, mitigations, and/or procedures for each hazard.

Note 1: The MATCT radios will be sited in accordance with the JO6580.6, "Remote Communications Facilities Siting Process."

Note 2: Air traffic deployments to nontowered airports must include coordination with sponsor requesting the MATCT.

Note 3: When conflicting guidance is discovered, the MATCT designated on-site manager will coordinate operational resolution with appropriate stakeholders.

Note 4: The MATCT siting location(s) must undergo environmental reviews to ensure proposed site(s) meets applicable standards and to determine impacts.

6.5 Operations Support Group (OSG): This organization is responsible for all the MATCT Air Traffic coordination and resolution. The OSG's responsibilities include coordinating with other lines of business facilitating the MATCT siting activities that may impact airspace and procedures, flight procedures, and tactical operations. The OSG may also provide information relating to impacts on airport capacity and efficiency resulting from the MATCT siting location, and assist in meeting the SMS policies and procedures requirements.

6.6 Terminal District Office: This organization is responsible for participating in the MATCT siting process. Responsibilities include identifying and evaluating the MATCT proposed sites utilizing operational expertise and local area knowledge. The Air Traffic Manager (ATM) is responsible for updating local orders, Letters of Agreement (LOA), and Letters to Airmen (LTA), reflecting changes resulting from the MATCT operations to include any necessary revisions for designated movement areas. Air Traffic Staff may reference the JO 7110.50, "Requesting a Letter of Authorization for Reduced Air Traffic Control Separation Standards at Recurring Air Shows or Fly-Ins," for additional guidance.

6.7 Flight Standards: In accordance with the JO 7400.2, the Flight Standards District Office is responsible for reviewing the MATCT proposed site height and location based on-ground and/or in-flight operational safety considerations and analysis, provided by Mission Support Services Aeronautical Navigation (AeroNav) Products and Airport District Office to ensure air navigation safety and efficient utilization of navigable airspace.

Note: Flight Inspection Services in accordance with the FAA Order 8200.1, United States Standard Flight Inspection Manual, can be used to determine the MATCT siting hazards for navigation and airspace.

6.8 Mission Support Services Aeronautical Navigation (AeroNav) Products: This organization is responsible for providing Obstruction Evaluation and Airport Airspace Analysis (OE/AAA) to include applicable United States Standard for Terminal Instrument Procedures (TERPS). Evaluates the MATCT site(s) for existing and planned instrument approach procedures published on approved Airport Layout Plan (ALP), and adheres to the Safety Management System (SMS) policies and procedures within their span of control.

6.9 Airports District Office: This organization is responsible for all coordination and resolution between Airport Sponsor and Siting Team involving the MATCT available siting locations to ensure safety in accordance with the FAA Order 5200.11, "FAA Airports Safety Management System."

6.10 Quality Control Group: This organization supports Service Areas with monitoring the ATO safety standards compliance in accordance with the FAA SMS. The SRM specialist will provide safety assessment oversight, and assist siting teams with preparing required SRM documentation.

Note: The Quality Control Group will prepare a report on all tracked hazards, and follow up with the SRM mitigation of medium to high level including associated recommendations.

6.11 Safety Engineering: This organization provides support to the Service Area Quality Control office, and reviews SRMDs that identifies an initial high risk. In addition, coordinates all risk mitigations with the Office of Safety and Air Traffic Safety Oversight Service.

6.12 Regional Runway Safety Office: This organization is responsible for reviewing the MATCT recommended sites for issues impacting runway safety. This review must include visibility of critical runway crossings, changes to the flow of airfield traffic, taxiway use changes, and any other pertinent factors.

6.13 FAA Facility Security Management Program Office: This organization is responsible for reviewing siting information in accordance with the FAA Order 1600.69, "FAA Facility Security Management Program," and provides Technical Operations Engineering Services input on security pros/cons for each preferred site.

Note: Security for the MATCT at nontowered locations should include practical solutions based on the Order 1600.69.

6.14 District Air Traffic and Technical Operations Representatives: This organization is responsible for providing subject matter expertise concerning the MATCT location selection.

Note: District is responsible for ensuring the MATCT siting safety assessment, tracking siting hazards, and monitoring all site specific mitigations.

7. PROCEDURES.

7.1 The MATCT Siting Criteria Process: The FAA SMS requires safety assessments be performed on all proposed changes to the NAS potentially impacting safety. The SRM process ensures safety-related changes are documented, hazards are identified, risks are assessed and analyzed, medium and high risks are tracked to resolution, high risks are mitigated to an acceptable level, medium risks are mitigated if possible, the effectiveness of the risk mitigation strategies are assessed, and the performance of the NAS change is monitored throughout its lifecycle. Hazards identified for final siting location must be assessed and mitigated to an acceptable level of risk in accordance with the SMS requirements, and these following criteria must be considered as a minimum.

a. Visual Performance

b. Terminal Instrument Approaches

c. Part 77 Evaluation

d. Environmental

e. Operational Requirements

f. Economic Considerations

7.2 Applying Federal Laws, Regulations, Orders, and Standards that pertain to the MATCT Siting.

a. Visual Performance: Evaluate controller's ability to observe airport operational areas including runways, taxiways, all other landings areas, and air traffic in vicinity of airport.

Acceptable Standard – Local Air Traffic (AT) accepts the MATCT view meets minimum operational visibility to perform assigned duties. Documentation must include the 360-degree photographs depicting operational surfaces from a controller's vantage point inside the MATCT using either a digital or similar camera.

b. Terminal Instrument Procedures (TERPS): Conducts the TERPS study to determine impacts at desired location and height.

Acceptable Standard – The FAA Form 7460-1 documenting no impacts to approaches with vertical guidance. The FAA Form 7460-1 documenting impacts to nonprecision approaches with airport authority letter stating user community concurs with any impacts.

c. Obstacle Evaluation: Comply with the 14 CFR, Part 77, "Objects Affecting Navigable Airspace" and Advisory Circular 150-5300-13, "Airport Design Standards."

Acceptable Standard – The FAA Form 7460-1 evaluated as a Nonrule Making Action (NRA) in accordance with FAA Order 7400.2, documenting Part 77 surfaces are either impacted or not impacted if properly mitigated.

d. Environmental: The MATCT recommended location(s) must undergo an environmental review to ensure proposed site(s) meets applicable standards and to determine impacts.

Acceptable Standard – Documentation validating National Environmental Policy Act (NEPA) process outlined in FAA Order 1050.1, "Conducting Preliminary Environmental Reviews," was completed. This process will usually result in one of three following actions: 1) Categorical Exclusion; 2) Environmental Assessment; and 3) Environmental Impact Statement.

e. Operational Requirements: The MATCT recommended location(s) must be evaluated for these following minimum operational requirements impacting safety.

(1) Height

(2) Access

(3) Security

(4) Atmospheric

(5) Airport and Airspace requirements

(6) Communication, Navigation, and Surveillance Equipment

(7) Line-of-site (i.e., Runways, Taxiways, and Movement Areas)

Acceptable Standard – Documentation of all required operational requirements noted above have been evaluated, and all hazards greater than low have been mitigated to acceptable levels according to the ATO SMS Manual.

f. Economic Considerations: Consideration shall be given to economic factors when proposing the MATCT sites, such as:

(1) Fees for Service

(2) Land Use Planning

(3) Utilities and Cabling

Acceptable Standard – Document cost benefits analysis of all required considerations.

7.3 Final Site Selection: Siting team members will conduct a Safety Risk Management Panel (SRMP) to complete the MATCT final location selection. Final approval authorities for the MATCT site selected shall be Service Area Directors for Terminal Services and Technical Operations.

7.4 Siting Report: A siting report will be generated by Technical Operations Engineering Services with at least the MATCT siting hazards, risks, mitigation, and methodology for final review and approval by Headquarters Terminal Services authorities. The final siting report will be distributed to all corresponding lines of business, terminal facilities, airport facilities terminal integration laboratory (AFTIL), airport district office, and airport authority.

8. MINIMUM HAZARD SAFETY ANALYSIS.

The following potential hazards will be considered at a minimum when siting the MATCT.

HAZARD 1 – NAS Watch
Description: Reduced services with communication, navigation, and surveillance equipment.
Causes:

- Anomalous propagation
- Electromagnetic interference
- Signal loss and limited coverage

HAZARD 2 – Obstruction Evaluation/Airport Airspace Analysis
Description:
Causes:

- Airport and Airspace requirements (i.e., Terminal Instrument Procedures)
- Part 77 violations impacting navigable airspace

HAZARD 3 – Visibility
Description: Limited viewing of operational airspace and surfaces.
Causes:

- Atmospheric
- Height limitations
- Structures/Terrain
- Exterior barrier(s)/Construction
- Viewing window(s) restrictions
- Ambient light changes/contrast eye adaptation
- Construction, residential, industrial, and airport lighting

HAZARD 4 – Site Location
Description: Potential disruption to controller operations associated with the MATCT activities.
Causes:

- Access
- Security
- Mobile tower leveling and anchoring
- Environmental Occupational Safety and Health (EOSH)
- Occupational Safety and Health Administration (OSHA)
- Artificial elevation of the MATCT height above existing airport surface (i.e., stability, high winds, etc.).

HAZARD 5 – OTHER
Description: (i.e., portable generator)
Causes:

- Fumes
- Noise
- Fuel Storage/Grounding

Note: Any other hazards not covered by previous hazards can be added to ensure site-specific compliance with the FAA SMS.

9. RELATED PUBLICATIONS.

Order Number	Order Name
JO 6580.6	Remote Communications Facilities Siting Process
FAA Order 6480.17	Terminal Facility Modernization/Relocation Survey and Evaluation Handbook
FAA Order 6480.7	Airport Traffic Control Tower (ATCT) and Terminal Radar Approach Control (TRACON) Design Policy
JO 6480.2	Maintenance of Mobile Air Traffic Control Towers (ATCT)
JO 7110.50	Requesting a Letter of Authorization for Reduced Air Traffic Control Separation Standards at Recurring Air Shows or Fly-Ins
JO 7400.2	Procedures for Handling Airspace Matters
JO 7210.3	Facility Operations and Administration
FAA Order 8260.19	Flight Procedures and Airspace
FAA Order 8260.16	Airport Obstruction Surveys
FAA Order 8260.3	United States Standard for Terminal Instrument Procedures (TERPS)
Advisory Circular 150/5300-13	Airport Design

10. ACRONYMS.

NAS	National Airspace System
CFR	CODE OF FEDERAL REGULATIONS
MATCT	MOBILE AIRPORT TRAFFIC CONTROL TOWER
NTSB	NATIONAL TRANSPORTATION SAFETY BOARD
OSHA	OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION
SMS	SAFETY MANAGEMENT SYSTEM
SRM	SAFETY RISK MANAGEMENT
SRMD	SAFETY RISK MANAGEMENT DOCUMENT
TERPS	TERMINAL INSTRUMENT PROCEDURES
MATCT	MOBILE AIRPORT TRAFFIC CONTROL TOWER (i.e., mobile and temporary)

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