



Aviation Mission Systems and Architecture (AMSA)

MOTS

The AN/MSQ-135 Mobile Tower System (MOTS) is a rapidly-deployable, air traffic control (ATC) tower and Airfield Lighting System (ALS) that quickly establishes Air Traffic Services (ATS) for arrival and departure of military and civilian aircraft and, when assisted by appropriate navigational aids, supports ground operations in all-weather conditions, night and day. The MOTS is designed to support military ATC and Airfield Lighting operations and communicate with other ATS and Mission Command (MC) systems. It is also capable of supporting civilian ATC and ALS needs that include disaster relief, forest-fire fighting operations, and temporary airfield operations anywhere in the world.

The MOTS is a modular system that includes the air traffic control tower and power plant; modernized, jam-resistant communications; ALS; Landing Zone (LZ) Light Set; and a Meteorological Measurement System. The ATC Tower is transportable by all standard land, rail, sea, C-17 or larger fixed-wing, and rotary-wing aircraft; however, the ATC mover cannot be transported by rotary-wing aircraft in conjunction with the tower. The system as a whole, however, can be transported by C-17 or larger aircraft.

The MOTS' function on the modern battlefield is to provide the Joint Force Commander or Combatant Commander a highly mobile, self-contained, integrated, and reliable information system platform for visual and procedural aircraft deconfliction and aircrew force protection in unified action, terminal airspace environments. The nine ATC operators are capable of providing control tower operations within 10 minutes of arrival in an area of operations and become fully operational within 40 minutes of arrival.

The MOTS is a first of its kind ATC tower for Army aviation and air traffic controllers. The system enables Soldiers to connect to the tactical network for immediate situational awareness and situational understanding of current and planned airspace. Its 5,000 foot ALS enhances nighttime airfield/LZ/PZ/CAB tactical assembly area operations. 15Q Air Traffic Controllers are able to control the runway lights, the LZ Lights, and existing airfield lights remotely from inside the tower cab. Further, the MOTS gives Soldiers a digital meteorological measuring system providing weather data at both the arrival and departure ends of a runway. MOTS also integrates the Tactical Airspace Integration System within the tower cab providing a near real-time airspace common operational picture of the location of aircraft and active airspace control measures.



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