



## **Capabilities Statement**

**Tummah Technology, Inc.  
7501 Memorial Parkway, Suite 211  
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[www.tummahtechnology.com](http://www.tummahtechnology.com)**

### 1. Overview.

Tummah Technology, Inc. offers a range of services specializing in all facets of adversary systems representation, and blue-forces Theater/Regional BMD weapon systems and interoperability. We focus on software development, analytical support, VV&A, and program management. Our services are designed to give our customers precisely what they need on time and on budget. Tummah is literally translated: "Honesty," "Integrity," "Singleness of Purpose," and "On the Right Course." With this maxim always in mind, we strive to be honest and fair as well as tenacious and determined in getting the job done. Whether a task is large or small, it is our goal to realize that standard every time. Tummah Technology is a Small Business operating out of Huntsville, AL.

### 2. Services

Our qualified and experienced staff work closely with our customers to deliver what is expected and required with 100% reliability in time and schedule. Our services include:

- **Threat Ballistic Missile Modeling and Analysis:** Tummah has several experienced users of the industry-standard threat modeling tools, including National Air and Space Intelligence Center's (NASIC) IMPULSE software; Missile and Space Intelligence Center's (MSIC) DICE, OMEGA, PIONEER, and Umpire software packages; and the Missile Defense Agency's (MDA) TGx trajectory generator software. Tummah has supported the Ballistic Missile Defense System Operational Test Agency (BMDS OTA) for over 10 years as the Lead threat accreditation support contractor for evaluating the MDA threat representation and targets. Few, if any, organizations have the same level of experience and expertise with the threat production processes, threat modeling, analysis

and assessment specific to material developers (Missile Defense Agency), the threat sources (the Intelligence Community), and the test community (BMDS OTA/DOT&E) as Tummah Technology maintains in-house.

- **Intelligence Services:** With our comprehensive threat and intelligence expertise, coupled with our advances in threat modeling, Tummah provides the most realistic and advanced Opposing Forces representation available which has enabled us to take the lead in adversary Left-of-Launch prediction.
- **BMD Modeling and Simulations:** Tummah personnel have extensive system performance and effectiveness analysis experience using force-on-force (M-on-N) simulations, including iHAWK, PATRIOT, CorpSam (MEADS), THAAD, and system-of-systems integration and interoperability; TADIL-J tactical communications (MIL-STD-6016). Tummah personnel have extensive experience working with the Extended Air Defense Simulation (EADSIM); from developing and analyzing scenarios to updating the source code. Additionally, we develop custom models and tools that seamlessly integrate legacy M&S assets with the latest generation M&S assets. We specialize in developing software interfaces between the Intel community and the M&S community, enabling Tummah to provide the most realistic and "smartest" adversary digital representation in the industry.
- Tummah personnel have vast experience participating in Warfighter Exercises at various levels (white, red, and blue cells). We have participated in multiple Joint Forces Command (JFCOM) constructive simulation exercises within the Red Cell (Rapid Decisive Operations) and the White Cell (Attack Operations events). Additionally, Tummah personnel participated in the Blue Cell providing Critical Mobile Targets (CMT) prosecution Subject Matter Expertise (SME) during Blue Flag exercises at Hurlburt Field, FL, as well as several European Command (EUCOM) exercises (Joint Project Optic Windmill events, Union Flash, and multiple Juniper Cobra events).
- **Distributed Simulations:** Tummah personnel have extensive experience building and executing distributed simulations, including both Distributed Interactive Simulations (DIS) and High-Level Architecture (HLA). Tummah personnel have a strong understanding of most DIS Protocol Data Units (PDUs). Our analysts and programmers have a wide range of experience in converting legacy simulations into fully HLA-compliant federations. We also have experience in developing Simulation Object Models (SOMs) and Federation Object Models (FOMs).

### 3. Products

Tummah Technology has developed several adversary models, including perhaps the most robust Enemy Course of Action (ECO) generator (adversary model) in the industry today.

- **The Red-Force Deployment and Evaluation Model (R-DEM):** R-DEM is a Red-Force ECO generation tool which integrates ECO into force-on-models (such as EADSIM) and trajectory models such as TGx, OMEGA, and UMPIRE; as well as integrated into

real-time actionable intelligence for attack operations against CMTs. R-DEM allows users to represent adversaries across multiple raids modeling adversary CONOPs, TTPs, and force protection.

- The Threat Data Augmentation Tool (TDAT): TDAT imports IC-produced BMRD 58-column data and export MDA's Single Missile High Resolution (SMHR), 17-column, and 19-column data files. This enables MDA users to quickly integrate IC-based threat data into tools and models which require SMHR data files.
- The OMEGA ASCII To System Tool Kit (STK) (OATS): The OATS tool was developed for MSIC, and enables OMEGA results/output (58-column data) to be directly imported into STK providing high-resolution visualization playback identifying critical threat system CONOPs.
- The Automated Threat Data Analysis Tool (ATDAT): ATDAT was developed for U.S. Army Combat Capabilities Development Command Aviation & Missile Center and MDA. ATDAT is a one-of-a-kind threat VV&A tool which automatically evaluates threat data used in MDA test events against Intelligence Centers assessments with little to no human intervention.
- The Adversary Missile Production Model (AMPM): AMPM models the adversary missile production process while accounting for environmental, costs and occupational constraints; as well as accidents and other user-defined anomalies. AMPM efficiently models the development processes and lifecycles of other weapon systems and air-breathing systems as well.

#### 4. NAICS Code:

- 541715 - Research and Development in the Physical, Engineering, and Life Sciences
- 541511 - Custom Computer Programming Services
- 541330 - Engineering Services
- 541512 - Computer Systems Design Services
- 541519 - Other computer related services
- 541712 - Research and Development in the Physical, Engineering, and Life Sciences
- 541690 - Other Scientific and Technical Consulting Services

## 5. Corporate Information

Tummah Technology, Inc. is a privately held Alabama S-Corporation headquartered in Huntsville, AL. Tummah is owned and operated by David W. Hatchett. Mr. Hatchett has over 30 years of missile defense experience focusing on modeling and simulations and analysis of both red- and blue-forces.

Classification: SBA Small Business

DUNS: 14-809-4860

Corporate Status: S-Corp

FCL: TOP SECRET

Website: [www.tummahtechnology.com](http://www.tummahtechnology.com)

## 6. Purchasing Information

Tummah Technology, Inc. products and services can be procured through typical business procurement methods including purchase orders. Additionally, Tummah Technology is a subcontractor on the following contract vehicles:

- DOMS MES – Subcontractor: CCDC Aviation & Missile Center
- AMCOM Express – Subcontractor: CCDC Aviation & Missile Center
- Consortium for Command, Control and Communications in Cyberspace (C5) Other Transaction Authority (OTA) - Member
- SeaPort NxG – Subcontractor Navy

## 7. Contact Information

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