



**Applied Geo Technologies, Inc.**  
**A History of Manufacturing Excellence**

January 2011



**AGT**

Applied Geo Technologies, Inc.



Halito! (Hello!)

Thank you for your interest in the manufacturing excellence delivered daily here at Applied Geo Technologies, Inc.

AGT is a diversified manufacturer of products to commercial and federal government customers, and our products include robotics, wiring harnesses for commercial and military vehicles, engineered flexible fabric tanks used for fuel or water storage. Our services include mechanical assembly, logistics and product support, operations management, facilities management, and systems engineering and integration.

Our dedicated employees embrace our Quality Policy that states "Applied Geo Technologies, Inc. is committed to meeting our customer's requirements and expectations. We will work to continually improve our products, services and quality management system through achievement of our established quality objectives and by management review of the quality management system."

With 20+ years of award-winning manufacturing service to clients including Ford, General Motors, Lockheed, Club Car, John Deere, NASA, and the Department of Defense, we are confident we can deliver unparalleled service to meet your needs.

Contact us anytime for a tour or a dynamic discussion about what AGT can do for you. The AGT Business Development Team can be reached at (256) 890-9139 or [info@appliedgeotech.com](mailto:info@appliedgeotech.com).

Yakoki! (Thank you!)

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# MANUFACTURING FACILITIES

AGT has three manufacturing locations in Mississippi: Choctaw, Carthage, and Picayune. The three facilities total 283,000 square feet of manufacturing space:



- Choctaw (TechParc): 75,000 sq. ft.
- Carthage: 128,000 sq. ft.
- Picayune: 80,000 sq. ft.

Cross-training between the TechParc and Carthage locations allows flexibility for adding production lines on demand, and to respond to design changes and revisions almost immediately. These facilities also provide just-in-time delivery saving clients precious warehouse space.

## AGT TechParc

TechParc in Choctaw, Miss., is home to AGT corporate headquarters and the manufacturing location for military wiring harnesses, robotics, and electronic warfare programs. TechParc is a 150-acre business development that opened in 2005. This location features 75,000 square feet of newly renovated manufacturing space that includes new high output, energy efficient lighting and fresh epoxy coating to the floors.

This facility is registered to ISO 9001:2008 and meets or exceeds MIL-I-45208, MIL-Q-9858A, J-STD soldering, ISO 14001 (Environmental), ANSI/NCSL Z540-1994-1, and



MIL STD 45662A Standard certification.

This facility is fully equipped to produce military and aerospace wire harnesses through the manufacturing life cycle from prototyping and low rate initial production to full rate production. AGT can provide First Article Testing of new or existing

harnesses including high and low temperature, high and low humidity, submergence, steam bath, pull testing, and contact retention testing. Two DITMCO Automatic



Circuit Testers are onsite and have a system accuracy of 1% continuity up to two amps, 3% insulation up to 1000 mega ohms, isolation up to 1500 volts DC, and continuity and resistance up to 900 points at a maximum of 5000 test per minute.



The DITMCO also performs capacitance and die electric HiPot testing. For inspection of solder joints to J-STD requirements, AGT utilizes a Lynx Stereo Microscope capable of capturing digital images of the joint.

Manufacturing equipment includes automated wire processing equipment ensuring accurate and precise cut and strip lengths of wire leads. Digital controlled solder irons, thermometers, and heat guns are used to produce finished wire harness to critical and exacting customer specifications.



This facility is registered to ISO 9001:2008 and AS9100 standards.

Since 2007, AGT has manufactured a small ground robot used for Improvised Explosive Device (IED) detection. AGT secures all materials, including AGT-designed components, and performs assembly and final integration of software to hardware. AGT has developed the processes, tooling and fixtures used in the manufacture, sub-assembly testing and final Acceptance Testing Procedure (ATP). The robot is the digital version of the Multi-function Agile Remote Control robot, or MARCbot IV-N. In addition to manufacturing the robot, AGT provides line replacement units (LRU) to the U.S. Army and U.S. Marine Corps for older versions in need of upgrades. There are approximately 1,300 MARCbots in use throughout Iraq and Afghanistan.

A newly designed Handheld Radar Simulator planned for use by the Naval Aviation Command Electronic Warfare Systems will begin

production in 2012. AGT will be responsible for assembly, integration and testing. AGT engineering has been involved in the design phase by providing the prime contractor with Design for Manufacture (DFM) and assistance with design for durability.

This AGT facility has a 98% Quality and 95% On-Time Delivery rating from its customers.

Mandatory pre-employment training for new employees is provided by East Central Community College (ECCC) via an integrated training center onsite in TechParc. ECCC also provides facilities to AGT for use in conducting Joint Standard (J-STD) training, and tailors training courses for any specific or specialized training AGT requires.



## AGT Carthage

AGT Carthage produces wire harnesses for commercial, industrial and automotive industries as well as kitting and distribution for automotive customers. The Carthage location has three buildings with a combined 128,000 square feet of manufacturing space.

This facility is certified to ISO 9001:2008 and ISO/TS16949, and has been benchmarked as using “best practices” by a major customer. Manufacturing in Carthage utilizes a lean “pull system”. Material is delivered to a receiving dock and flows through the manufacturing area in a straight path as it is processed to a finished goods shipping dock. The shipping plan at Carthage is dynamic due to support of just-in-time requirements for major customers. AGT’s Carthage team excels at reacting to customer changes for production schedules and design.

Leading edge manufacturing processes and equipment allow Carthage to respond rapidly to changing customer requests for short and medium run requirements. This flexibility has earned AGT the privilege to be the wire harness supplier to Club Car, a leading global provider of golf cars and utility vehicles. AGT cabling is found in every model in the Club Car portfolio. The facility has produced high volume harnesses for Club Car, Chrysler and Valeo Sylvania, a tier one supplier to Ford.

Equipment utilized includes Programmable Logic Controller wire processing equipment that cuts, strips and terminates both ends of a wire lead in one operation on one machine. Sonic welders are used to produce superior quality splices. Large capacity hydraulic presses are utilized to crimp terminals to large gauge wires such as battery cables and ground straps. For higher volume harnesses, transfer and rotary transfer lines are used.

Custom braiding requirements can be performed on either 32 or 24 spool braider capable of using Nylon or Stainless Steel braid material.

New part assembly processes are proved out in a Methods Lab before release for production. The Methods Lab also performs production part approval process (PPaP) on new parts as well as periodic re-qualification of production parts.

The Carthage facility has a 100% OTD rating and a world class Defective Parts per Million (DPPM) less than 200 as rated by AGT customers.



## AGT Picayune

The AGT Picayune facility is an 80,000 square foot manufacturing facility adjoining a 10,000 square foot state of the art high bay test area. The two-year-old facility was built to support engineered fabric production yet can easily be converted for manufacturing a variety of products. Currently AGT produces 210,000 gallon collapsible bulk fuel storage tanks for the U.S. Army Tank and Automotive Command (TACOM). The tanks are used in bulk fuel farms in the Army operational theater. Almost any size tank can be produced, and they can be used for storing almost any liquid.

Equipment used to produce the large capacity tanks include programmable logic controlled (PLC) four foot heated platen presses, custom digital controlled fabric seam welders, digital controlled hot air tapers, digital controlled fold-

over presses, Radio Frequency welders, and digital controlled heat guns.

Since starting production, AGT has received excellent customer reports, including direct reports of superior performance from Army contractors using the tanks in fuel farms in Iraq and Afghanistan.

The Picayune facility is ISO 9001:2008 certified and AGT flexible fabric tanks meet or exceed certifications for use with hydrocarbon-based liquids, potable water (NSF61), foodstuffs (EU Directive compliant), FDA regulated liquids (Title 21), international drinking water standards (AS/NZS 4020:2005; SI-5452), battery acid (BS 6290), military grade applications (MIL-T-53029C; MIL-T-52983E), drinking water (SI-5452), and acidic, aqueous or alcoholic foodstuffs (SI-5113).

## Material Planning

All AGT manufacturing locations are integrated into one Material Requirements Planning (MRP) system. Customer Purchase Orders are entered into the MRP, or received through electronic data interfaces. MRP schedules the start and ship dates, releases production orders to manufacturing, controls inventory, and signals material requirements to purchasing to ensure customer delivery requirements are met.



# QUALITY

AGT has a wide range of manufacturing and service processes featuring common corporate quality requirements as well as respective industry or contractual quality requirements. AGT's three manufacturing facilities are registered to ISO 9001:2008.

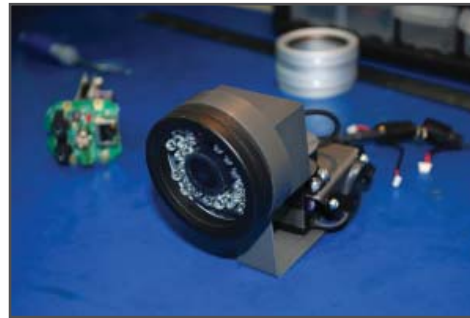
The corporate quality management system enables AGT to demonstrate that it consistently provides products that meet customer and applicable regulatory requirements in accordance with specific standards. AGT aims to enhance customer satisfaction, define processes for continual improvement, and assure conformity to applicable standards.



## ISO/TS 16949

The Carthage facility is additionally certified ISO/TS 16949 for the manufacture of wire harness assemblies. The ISO/TS 16949 automotive standard includes every ISO 9001 criteria and emphasizes the following:

- Quality
- Cleanliness
- Safety
- Control Plans
- Outsourced Process Control
- Contingency Plans
- Change Control
- Controls Throughout the Automotive Supply Chain



## AS9100

AGT is registered to AS9100, the aerospace and aeronautic industry's quality standard that includes every ISO 9001 criteria and emphasizes the following:

- Planning of Product Realization
- Project Management
- Risk Management
- Configuration Management
- Change Control
- Control of Work Transfers
- Reliability

## Other Certifications

AGT production facilities in Tech-Parc and Carthage meet or exceed MIL-I-45208, MIL-Q-9858A, J-STD soldering, ISO 14001 (Environmental), ANSI/NCSL Z540-1994-1, and MIL STD 45662A Standard certification.



AGT flexible fabric tanks meet or exceed certifications for use with hydrocarbon-based liquids, potable water (NSF61), foodstuffs (EU Directive compliant), FDA regulated liquids (Title 21), international drinking water standards (AS/NZS 4020:2005; SI-5452), battery acid (BS 6290), military grade applications (MIL-T-53029C; MIL-T-52983E), drinking water (SI-5452), and acidic, aqueous or alcoholic foodstuffs (SI-5113).

### Inspection, Measuring and Test

AGT has a documented corporate calibration system and centralized database for its inspection, measuring and test equipment (IM&TE). Each facility is responsible for managing and assuring its IM&TE compliance. AGT's IM&TE are serviced as required by NIST (National Institute of Standards and Technology) traceable calibration laboratory services that include onsite services as needed.

### Internal Audit Program

AGT's documented internal audit program provides for contract or standard-specific audit methods such as system, procedural, process, and product audits as well as layered process audits and gap analyses. The quality function involves certified, experienced lead auditors as well as trained and qualified auditors for its ISO 9001:2008, ISO/TS 16949 and AS9100 standard programs.

### Key Performance Indicators

Key performance indicators are identified by top management for measuring critical-to-quality data on mature, stable, and capable processes. Customer ratings, internal DPPM and other metrics are collected as needed for continual process improvement such as first pass yield, fraction defective, and defects per defective unit.

Corporate quality objectives include supplier and customer on time delivery, internal and external customer complaints, DPPM reduction, scrap reduction, corrective and preventive actions, internal audit results, and layered process audit (LPA) results.



# SAFETY

Providing a safe environment in which employees and contractors work is a primary concern of Applied Geo Technologies, Inc. AGT management and employees have adopted the motto “There is no job too important or so urgent that we cannot take the time to perform our work safely.” AGT believes that by working safely customers receive the best product or service available.

AGT adheres to Occupational Safety and Health regulations set

forth by the Occupational Safety and Health Administration (OSHA) and Environmental Management

*“There is no job too important or so urgent that we cannot take the time to perform our work safely.”*

regulations set forth by the Environmental Protection Agency (EPA) throughout each manufacturing or service provided facility. Each AGT manufacturing facility has been evaluated by a certified industrial

hygienist to ensure that the safety and comfort of employees and valued customers is to the highest level. AGT employees strive daily to implement new and creative ways to reduce workplace injuries and illnesses, realizing that even one workplace injury or incident is too many.

# SECURITY

Applied Geo Technologies, Inc. ensures that applicable personnel are cleared appropriately and security is in place to comply with the Security Classification Guide. AGT implements an Operation Security Program and Security (OPSEC) plan for the protection of classified information, Controlled Unclassified Information, and sensitive company proprietary information. Personnel, cleared and unclassified, are briefed on OPSEC procedures.

AGT has an information technology OS (Operating System) that is not on the AGT company domain featuring limited Privileged Users. There is an onsite Information System Security Manager.

AGT is registered with the State Department and follows regulations in the International Traffic and Arms Regulations (ITAR) 22 C.F.R.

Chapter I, Subchapter M Parts 120 – 130.

## Defense Articles and Services

Defense articles, defense services, and technical data subject to control under defense laws and regulations (e.g., ITAR) may not be transferred to persons, whether located in the United States or abroad, without a valid license or

agreement approved by the applicable government authority.

## Visitor Control

Visit control measures are in place and enforced. Escorts are required for visitors at all locations, and electronic devices such as Blackberrys, PDAs, and cell phones are not allowed in the manufacturing area.



# PROGRAM MANAGEMENT

AGT follows the Project Management Institute (PMI) approach to project management. Procedures for risk identification and planning, cost control, schedule development and monitoring, and management reviews were developed to align with the PMI approaches.

## Risk Management

Risk identification, planning and tracking are conducted in accordance with the Risk Guide for DoD Acquisition, Sixth Edition. Risks are those unknown factors impacting project performance goals that will include cost, schedule and budget. These documented risks include all disciplines (e.g., finance, engineering, manufacturing, suppliers, customers, etc.) and require subjective assessment for evaluation and establishing priorities to mitigate the risks. Risk management begins during the

proposal phase of a program and continues throughout the various phases of the program, and it is integrated into the program management processes. The Program Manager (PM) is responsible for leading the team in the risk management process and reporting to management.

Risk management and evaluation can be broken down into a series of common sense steps:

- Identify each risk in detail in an open, honest and realistic team meeting
- Analyze each risk as a stand-alone possibility
- Identify the risk owner or functional dept who has responsibility for each risk
- Have the risk owner identify a risk strategy and brief description of path(s) to pursue to resolve the risk

- Assess the likelihood of the risk occurring
- Assess the consequence or worst possible outcome if not resolved
- Assess the priority of the risk

Risks are monitored throughout the phases of a program. The risk category and the mitigation plans are updated as events evolve. All program risks are reviewed with AGT senior management as part of the quarterly review process.



## Cost Control

The cost baseline for a program is developed from the negotiated cost of the contract. This includes revenue projections and cost estimates for implementing the program. The program manager (PM) is responsible for developing the program budget and program revenue plan. As the program is executed the actual costs are collected in the AGT financial system. The PM is responsible for analyzing these costs, comparing them to the program budget, and reporting on variances. In order to report to management on the financial

status of the program, the PM develops an Estimate at Completion (EAC) that defines what the expected cost of the program will be taking into account the current actual costs and the work still remaining to be performed. The PM also provides current revenue projections which take into account any schedule slips that impact revenue.

Changes to the cost baseline for a program are only made if a contract modification is issued and with approval of the Director of Programs. Contract modifications

can be for added scope, schedule and delivery changes, or pricing adjustments.

The financial status of the program is monitored on a weekly and monthly basis by the PM and the finance organization. The PM reviews labor charges, material charges, and overhead charges to the program and coordinates with the finance organization to resolve any discrepancies. The program financial status is reported to AGT senior management on a monthly basis.

## Scheduling Process

Each AGT program is managed to a schedule. The initial schedule is developed during the proposal phase or at contract start and includes the high level milestones and activity flows for the program. The schedule is developed with participation by key team members and is reviewed with the customer. As high level milestones and activities approach, detailed activities and dependencies are added to the schedule. The PM is responsible for conducting regular team meetings to review and update the schedule. Modifications to the schedule that do not impact either a customer or an AGT management milestone are made by the PM as the program evolves. If changes to the schedule will result in a customer or AGT management milestone being impacted, then the PM must coordinate it with

the Director of Programs and the contracts organization for customer coordination. The schedule and the associated delivery metrics are

reviewed with AGT senior management on a monthly and quarterly basis.



## Management Reviews

AGT conducts monthly management reviews to evaluate the financial status, recent accomplishments, upcoming milestones, and issues on each program. This review is called the Red, Yellow, Green (RYG) review because it is conducted in a stoplight format. The review provides management

insight into the activities on the program and allows a forum for discussion of any issues or risks.

AGT also conducts quarterly business reviews expanding upon the content of the RYG meeting by including detailed financial information, schedule and quality metrics that support the program score-

card, risk updates, and opportunities for expanding the business with the program or the customer.

The combination of these management reviews provides the necessary visibility to ensure that programs are successful, risks are managed, and issues are addressed.

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### Applied Geo Technologies, Inc.

All AGT manufacturing facilities are registered to ISO 9001:2008.

AGT TechParc is also registered to AS9100.

AGT Carthage is also registered to ISO/TS 16949.

Facilities tours are available. Contact the AGT Business Development Team at (256) 890-9139 or [info@appliedgeotech.com](mailto:info@appliedgeotech.com).

Visit AGT on the Web at [www.appliedgeotech.com](http://www.appliedgeotech.com)





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