

GA Supplier Day 2022

Quality Matters

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Agenda

- **GA Core Values**
- **GA Quality Policy**
- **GA Products and Technology**
- **GA's Expansion in Space**
- **Unique Quality Requirements of the Aerospace & Defense Industry**
- **Powerful Partnership in Quality**
 - What it means to GA

GA Core Values

- We follow the letter and spirit of the law of the United States and all other countries in which we do business
- We act with integrity and conduct our business to the highest moral, legal and ethical standards
- We satisfy our customers by meeting our commitments and delivering high-quality, innovative, cutting-edge products and services
- We treat one another with respect and take pride in each other's contributions
- We value our Suppliers by treating them fairly and recognizing their role in our success

We value quality and you!

GA Quality Policy

- We are committed to developing, producing, delivering, and supporting products that meet or exceed the requirements of our customers
- We continually improve our products and process through coordination with our customers, employees, and **suppliers**
- We regularly review our quality objectives and **assess risk** associated with the Quality Management System to ensure that we maintain customer satisfaction and business focus
- We maintain a dedicated, competent workforce and provide them with a safe work

Your contribution to quality matters!

GA Products & Technology

- **Energy Systems and Products**

- Innovative nuclear and alternative energy solutions, with a focus on research needed for sustainable, alternative technologies that are safe and economical

- **Defense**

- Diverse portfolio of first-of-kind electromagnetic aircraft launch and recovery systems, multi-mission railgun weapon systems, satellite systems, and integrated power and energy technologies are helping revolutionize the way military forces address complex challenges and protect against evolving threats

- **Commercial Products**

- Range of advanced technologies, such as Gulftronic[®] electrostatic separators, TRIGA[®] non-power nuclear reactor, diagnostic reagents and enzymes, deicing technology, high-power microwave, hazardous waste destruction, radiation monitoring systems

Our history of powerful partnership has been the foundation of mutual business success

GA Expanding in Space

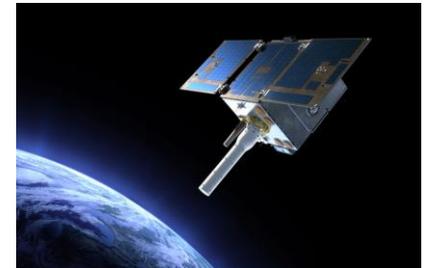
- **Several exciting programs in progress**
 - Customers include National Aeronautics and Space Administration (NASA), U.S. Space Force (USSF), and National Oceanic and Atmospheric Administration (NOAA)
- **Space customers have extremely stringent quality requirements**
 - Part selection (i.e., radiation, outgassing)
 - Environmental testing
 - Foreign Object Debris (FOD) prevention
 - Nonconformance / anomaly reporting
 - Preferred and prohibited materials
- **Achieving reliability and robustness in space is a significant challenge**

A robust quality management system is required to be successful

OTB-1: Launched 2019



GAzelle: Launched Oct 7, 2022



EWS: Launching 2024



Unique Quality Imperative Faced by Aerospace & Defense

- **The Aerospace & Defense (A&D) industry has recognized the crucial role of quality in the performance of aviation, space, and defense products for decades**
 - Development of quality standards that take into account unique industry challenges for product safety and reliability
- **There are no second chances in space, on board an aircraft carrier, or when operating a nuclear reactor**



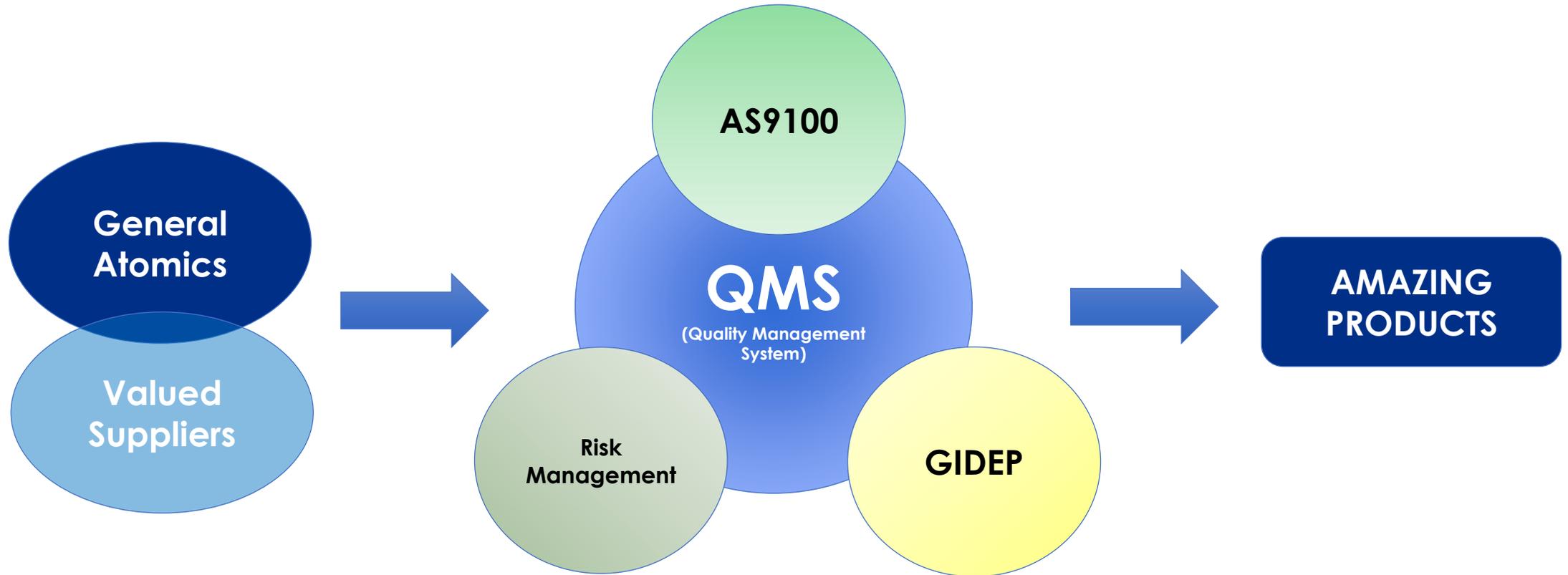
Industry favors and often requires unique A&D certifications and accreditations

GA Preference for Partners in Quality

- **Suppliers with Aerospace & Defense (A&D) industry certifications and quality-focused organizational participation**
 - AS9100 certification
 - Risk Management
 - GIDEP participation
- **Promotes confidence in our suppliers' products and services**
- **Better quality, conformity, safety, reliability, and traceability of supplier products and services**
- **Less costly and more on-time supplier deliveries**
 - Fewer nonconformances and fewer schedule impacts
- **Supports GA's ability to maintain its own certifications and accreditations**

You are critical to our continued success in old and new frontiers!

Powerful Partnership in Quality



Our transformational technology opens the door for more and even stronger relationships

A&D Quality Management System (QMS)

- **SAE International Aerospace Standard 9100 – “AS9100”**
 - “Quality Management Systems – Requirements for Aviation, Space and Defense Organizations”
 - Current revision is AS9100D
 - Created by the International Aerospace Quality Group (IAQG) in collaboration with representatives from aviation, space and defense companies worldwide
 - First released by Society of Automotive (SAE) in October 1999, replacing AS9000
- **Fully incorporates requirements of International Standards Organization (ISO) 9001**
 - Plus adds another 100+ requirements
- **Designed specifically for manufacturing and services companies in Aerospace sector**
 - Satisfies quality requirements for multiple agencies, including:
 - Department of Defense (DoD)
 - National Aeronautics and Space Administration (NASA)
 - Federal Aviation Administration (FAA)
- **“AS9100 Certified” means an organization has met the requirements of AS9100 as certified by an independent certification body**



GA is proud to be certified to AS9100D

Benefits of AS9100 Certification

- **Global recognition as a reputable supplier**

- Certification is recognized internationally and accepted throughout industry supply chains
- Industry benchmark for sourcing suppliers

- **Access to large Original Equipment Manufacturers (OEMs)**

- All companies registered to an Aerospace standard are listed in the Online Aerospace Supplier Information System (OASIS) database

- **Product improvement**

- **Process effectiveness**

- **Customer satisfaction**



Many benefits, including more effective participation in industry

Risk Management

- **Important element of an effective Quality Management System (QMS)**

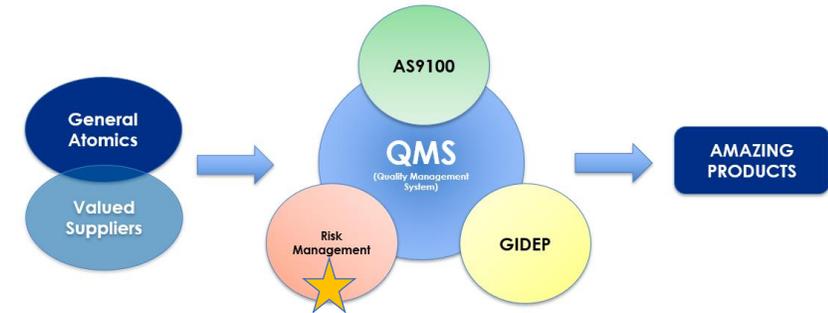
- Understand, communicate, and manage risk to the achievement of objectives

- **Especially critical for Aerospace & Defense**

- Nonconformances could result in loss of mission, serious injury, or loss of life

- **AS9100 Risk Management Requirements**

- Plan, implement, and control the process for managing operational risks toward achieving all applicable requirements
- Ensure QMS can:
 - Achieve intended results;
 - Enhance desirable effects
 - Prevent or reduce undesirable effects
 - Achieve improvement
- Sub-tier supplier management



Risk management can prevent undesirable results that have serious consequences

CAPA & Continual Improvement

- **What is a nonconformity?**
 - A failure to meet a customer, regulatory body, or your own organizational requirement
- **Corrective Action & Preventive Action (CAPA)**
 - Requirement of ISO 9001 and AS9100
 - Corrective Actions (CA) **eliminate the cause of nonconformances** and prevent recurrence
 - Prevent Actions (PA) **prevent nonconformities**, generally as a result of **risk analysis**
 - Both CA and PA can improve processes and lead to continual improvement
 - Helps avoid the cost of mistakes and potential loss of reputation
- **Continual improvement**
 - Can improve processes, resulting in greater efficiency and lower costs
 - Can **mitigate risk** of nonconformances



A robust CAPA program can prevent costly mistakes and promote greater efficiency

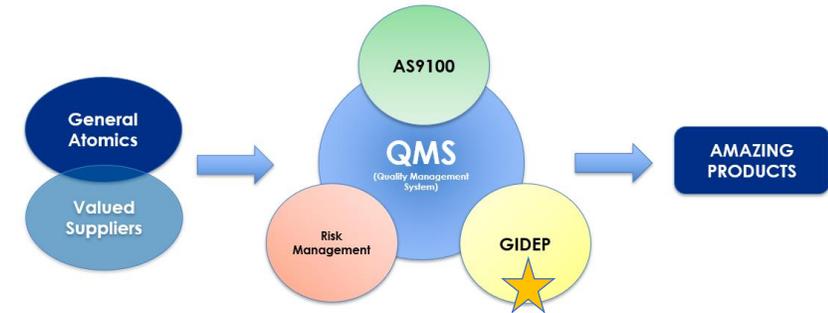
Government-Industry Data Exchange Program (GIDEP)

- **Cooperative activity between government and industry participants**

- Reduce or eliminate expenditures of resources by sharing technical information
- Membership is free! Visit gidep.org today.

- **FAR 52.246-26, Reporting Nonconforming Products (Nov 2021)**

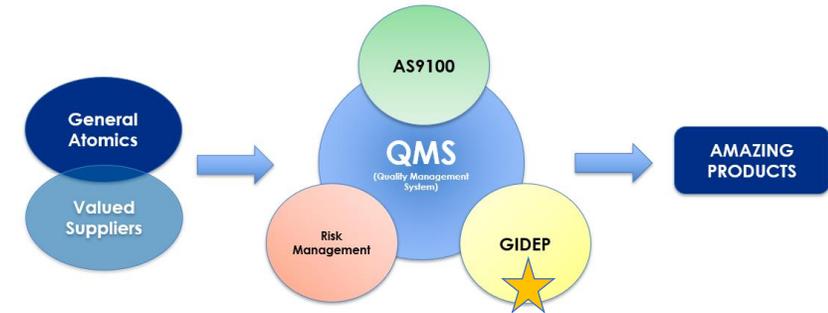
- Included in GA's standard terms and conditions for government contracts
- Requires government contractors and subcontractors to screen for, report, and retain (until customer disposition) nonconforming items, including suspect counterfeit using GIDEP
- Flow down to subcontractors:
 - Required for items subject to higher-quality standards; critical items; electronic parts or end items, components, parts, or materials containing electronic parts
 - Not required for subcontracts for commercial products and services



Participation in GIDEP is required under FAR 52.246-26 for DoD Procurements

The Cost of Counterfeit Parts

- **Counterfeit parts have become a multi-billion-dollar industry**
 - Technological advancements and increasingly global supply chain have made the threat even more likely
- **Comply with all regulatory requirements, quality standards, and best practices regarding counterfeit avoidance, detection, and reporting**
- **Proactive focus on avoidance as opposed to just detection**
 - Detection can be too late to avoid costly impacts
 - Schedule delays, rework, loss of reputation, potential loss of life
- **GIDEP membership provides access to industry reports and critical technical data**
 - Helps avoid counterfeit issues before they materialize
 - Reporting to GIDEP is an important element of counterfeit part avoidance



Avoid the cost of counterfeit parts

Support our Quality Policy

- **Meet or exceed all PO requirements**
- **We need your support to continually improve our products and processes!**
 - Improvements you make to your products and processes have the potential to improve ours
- **Regularly review your quality objectives and assess risks associated with your QMS**
- **Maintain a dedicated, competent workforce and provide them with a safe work environment**

<https://www.ga.com/procurement/quality-policy>



GA Quality Policy

We are committed to developing, producing, delivering, and supporting products that meet or exceed the requirements of our customers.

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We regularly review our quality objectives and assess risk associated with the Quality Management System to ensure that we maintain customer satisfaction and business focus.

We maintain a dedicated, competent workforce and provide them with a safe work environment.

 **GENERAL ATOMICS**
AND AFFILIATED COMPANIES

Your contribution to Quality Matters!

Commit to Supporting GA's Supplier Code of Conduct

- **GA's Supplier Code of Conduct is posted at**
<https://www.ga.com/procurement/supplier-code-of-conduct>
- **Includes GA's Core Values**
- **Includes many "Practical Commitments", including:**
 - **Quality Assurance**
 - Employ quality assurance processes and best practices that conform to U.S. and international standards
 - Proactive identification of nonconformance and appropriate corrective action to ensure delivery of quality products or services that **meet or exceed contract requirements**
 - **Counterfeit Avoidance**
 - Employ counterfeit electronic part detection and avoidance programs
 - Provide required documentation to authenticate reliability and conformity

Quality is a big part of our Code!

What can you do to be a Powerful Partner in Quality?

- **Maintain a robust Quality Management System that includes effective Risk Management**
- **Pursue A&D certifications and industry accreditation**
- **Maintain a robust Counterfeit Prevention Program and participate in the Government-Industry Data Exchange Program (GIDEP)**
- **Maintain a robust Corrective Action and Preventive Action (CAPA) program**
- **Focus on Continual Improvement**
- **Support our [Quality Policy](#)**
- **Commit to our [Supplier Code of Conduct](#)**
- **Contact us immediately with any quality, or product reliability or safety, concerns!**

Our success depends on your commitment to Quality

Contacting GA for Quality Matters

- **Contact your Authorized Procurement Representative immediately to notify GA about any quality concerns**
- **Utilize the Supplier Disposition Request (SDR) process to submit nonconformances (NCs) to GA Quality for disposition**
 - NCs that cannot be reworked to print
 - Design modification requests
 - Requests for information to clarify drawing or specification requirements
- **SDR Forms available on [GA.com](https://www.ga.com) under “/procurement/quality-assurance-forms”**
 - Use [EMS-0196](#) for General Atomics Electromagnetic Systems Group (GA-EMS) Orders
 - Use [GA-2329](#) for all other General Atomics Orders (e.g., supporting Department of Energy)

Thank You!

Thank you for your continued commitment to
our Powerful Partnership in Quality!

QUALITY MATTERS!

Questions?