



# NEWSLETTERNOTES

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**Newsletter Notes** is the official publication of the ASQ Aviation, Space & Defense Division.

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## CHAIR CORNER

by Steven Meyer

This is the time of the year where we traditionally reflect on where we have been, what happened last year, and where we want to go in the future. Certainly the Aviation, Space and Defense Division board is no different than you in this regard.

The division has a rich history with numerous accomplishments in industry and in helping members develop professionally. ASD participated in the creation of the AS9000 standard in the mid-1990s and subsequent revisions. ASD leaders were involved with the creation of IAQG and AAQG and the RMC process that replaces the individual customer quality system audits with a single AS9100 audit. Division leaders created an industry and agency team to create a supplier quality body of knowledge for free use across the industry. And every year we have the Conference on Quality in the Space and Defense Industries—your best source of current information and trends as presented by the industry, U.S. Military, and regulatory leaders.

Regarding personal development, the leadership roster is ripe with members who have gone on to be vice presidents in companies such as Pratt, Raytheon, and Rockwell Collins. Past chairs Spencer Hutchens Jr. and Peter (Pete) L. Andres have gone on to be ASQ presidents. Division leadership roles give you the chance to personally grow.

Looking at 2009, when we ask ourselves if the ASD Division has met our goals, the answer is a resounding yes. We are proud of several major achievements: we held another successful CQSDI; participated in the revision of AS9100 and AS9101; and have finalized our agreement with Florida Gulf Coast University to fund a perpetual endowment that will

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Aviation, Space & Defense Division

establish the Program for Quality Management in the Lutgert College of Business.

In looking toward 2010 and beyond, the board started by updating the vision and strategic plan.

The ASD Division vision is:

*To be the organization that supports and develops the ASD professional via our knowledge and relationships within the industry and with our members.*

The strategic plan will be presented in detail in a future article, but to accomplish it we will need support from members who would like to give to our industry and grow professionally at the same time. One of the key goals is to bring back the CASS (Civil Aviation Safety Symposium) in 2011. There will be opportunities for everyone regardless of the participation level.

In closing, I would first like to thank the board and all of the division members who helped make 2009 the success it was. You are the reason we were able to accomplish our results. Thanks for a great 2009! I'd also like to pose a question: How will you achieve your professional development objectives in 2010 and would active participation in the Aviation, Space and Defense Division help you achieve those objectives? I certainly hope the answer is yes.

## LOOKING FOR VOLUNTEERS

ASD is looking for several volunteers to help deploy our 2010 plans.

- Do you have a passion for electronic communication? We need members to help manage our Web site and electronic discussion groups.
- Do you have a passion for writing? We need contributors for articles to both the newsletters and the Web site.
- CASS Conference—We need volunteers to plan and execute this conference.

Please contact Steve Meyer at [steven.meyer@goodrich.com](mailto:steven.meyer@goodrich.com) if you would like to volunteer.

## CASS CONFERENCE FOR 2011

After a multi-year hiatus, the ASD board would like to bring back the CASS (Civil Aviation Safety Symposium) in 2011. CASS is the civil aviation equivalent to the CQSDI with the focus on trends and current topics applicable to civil aviation. Putting on such a conference is no small task, so we are looking for volunteers from industry and regulatory bodies to assist with the planning and execution of this conference. There are numerous big and small jobs that go into creating and running such a conference, so we have a task that will fit every volunteer. Please contact Steve Meyer at [steven.meyer@goodrich.com](mailto:steven.meyer@goodrich.com) if you would like to volunteer.

## AS&D STANDARD TO HARMONIZE DoD CRITICAL SAFETY ITEM MANAGEMENT ACROSS THE SUPPLY CHAIN

by Jim Clifford

The Americas Aerospace Quality Group (AAQG) (<http://www.sae.org/aaqg>) is in the process of reconciling final industry comments and readying for publication (target is by year end) a new aviation, space, and defense (AS&D) standard designed to harmonize requirements across the supply chain for management and control of Department of Defense (DoD) Aviation Critical Safety Items (CSIs).

The AAQG is Technical Committee G-14 of SAE International (see <http://www.sae.org/servlets/works/committeeResources.do?resourceID=120421>). The AAQG is a cooperative organization within the aerospace industry in the Americas (including North, Central, and South Americas) whose purpose is to establish and maintain a dynamic cooperation based on trust between Americas aviation, space, and defense companies on initiatives to make significant improvements in quality performance and reductions in cost throughout the value stream.

The new standard, AS9017, to be published by SAE Aerospace (<http://aerospace.sae.org/>), is the result of a two-year

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collaborative effort of member companies of the AAQG and representatives of the DoD responsible for CSI policy on behalf of the various branches of the armed services.

The U.S. government has always been serious about aviation safety. But, after “repeated receipt of defective, suspect, improperly documented, unapproved, and fraudulent parts used in safety-critical applications”<sup>2</sup> during the ‘90s, the government recognized that robust processes to manage aviation critical safety items were required.

In the government’s own words: “In response, each DoD acquisition organization, program office, functional specialty, supply center, contract management office, and contractor established and applied their own approaches for managing critical items. Although they all had the same intent (i.e., to ensure the quality of safety-critical parts), the proliferation of terms, policies, and procedures created unacceptable risks caused by gaps, confusion, and error.”<sup>2</sup>

In response to the variation, the Joint Aeronautical Logistics Commanders’ (JALC) Group issued policy in 2002 endorsing a coordinated and common approach to CSI management. The JALC, comprised of the commanders of Naval Air Systems Command (NAVAIR), the Marine Corp, the Army, the Coast Guard, Defense Logistics Agency (DLA), Defense Contract

Management Agency (DCMA), National Aeronautical & Space Administration (NASA), and the Federal Aviation Administration (FAA), appointed NAVAIR as the point agency for coordinating and issuing joint policy and guidance. In November of 2003, a Public Law (P.L. 108-136 Sec 802—see <http://www.gpoaccess.gov/serialset/cdocuments/sd108-11/pdf/pl108-136.pdf>) was issued mandating the DoD to “prescribe in regulations a quality control policy for the procurement of aviation critical safety items and the procurement of modifications, repair, and overhaul of such items.”<sup>3</sup>

Over the next several years, under the leadership of NAVAIR, considerable policy, instructions, Defense Federal Acquisition Regulation (DFAR) clauses, Defense Logistic Acquisition Directives (DLADs), and guidance documentation were created to prescribe for the government the regulations required by the public law. Much of the initial and current policy and guidance documentation can be found at the Defense Supply Center’s CSI policy Web site at <http://www.dscr.dla.mil/ExternalWeb/UserWeb/AviationEngineering/TechnicalOversight/CSGuidanceandpolicy.htm>.

Unfortunately, given the length of time over which these documents were published, there was some inconsistency and overlap in government instruction and very little in defined

requirements specifically applicable to contractors. As a result, there was considerable variation in the actual contract requirements that were issued to contractors and even more variation in the manner in which the various government agencies executed their management/oversight activities.

It was in this environment that Jack Fletcher (formerly of Bell Helicopter, now with NASA/Jet Propulsion Laboratory (JPL)) proposed to the AAQG in September 2007 that an aerospace standard be developed. The initial project proposal defined the opportunity as: “Left to our own devices, multiple sets of requirements will be developed and flowed down to suppliers. We all share the same suppliers. Common suppliers will be receiving different sets of flow down documents creating confusion and possible conflict.” The project success criteria were defined as: “1. Consistent set of requirements flowed down to shared suppliers, 2. Consistent evaluation criteria, and 3. Cost savings for suppliers and primes.”

Though the project was initially accepted in 2007, considerable resistance toward creating this standard was encountered in part because many in the supply chain did not produce DoD products, and many who did had not yet recognized the variations that existed across the supply chain (in some instances, prime

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contractors inaccurately believed that control of CSIs did not apply to them because of the limited level of activity they had encountered to date).

In the summer of 2008, the reigns of AAQG project leadership passed from Fletcher to another representative of Bell Helicopter, Michele Gagne. It was under Gagne's leadership that, over time, the amount of variation became visible to a majority of AAQG members, the DoD service branches signed on as full partners in the writing of the standard, and the wisdom of creating common requirements for the entire supply chain for CSI management became accepted by the majority of AAQG companies.

From that point, the identification of key requirements for suppliers that support government policy and guidance without conflicting with existing prime contractor requirements were developed and vetted across industry (via the AAQG, SAE, and Aerospace Industries Association) and government agencies over several informal and formal ballots.

The standard is organized according to the AS9100 process structure (i.e., the "8 elements") where the AS9017 requirements are to be considered in addition (and complementary) to the applicable AS9100 requirements. The bulk of the new standard's requirements are contained in the "Product Realization" and the "Measurement, Analysis

and Improvement" sections and prescribe the requirements that a supplier must have in their system for key processes like: CSI identification, customer communications, planning, process control, production changes, purchasing flow down, identification and traceability, work transfers, product process verification (a.k.a., first article inspection), control of nonconforming material, and audit.

It is intended that the standard be contractually flowed to suppliers via the prime/first tier contractor, and thereby auditable for compliance as a customer requirement as part of a quality management system audit. It is not intended as a standard for registration via a third party.

Currently, there are no intentions to mandate that this standard be flowed to prime contractors by the government, but the government could accept it as a mutual contractual requirement if proposed by a contractor in response to a request for proposal.

At press time, the proposed final ballot was released by the AAQG (in August 2009) and the plan called for final resolution of comments to occur at the AAQG fall meeting in Charlotte, NC, in September. Publication is anticipated sometime during the fourth quarter, depending upon the quantity of the final ballot comments that need resolution.

If you have questions regarding the AS9017 standard

before publication, please e-mail them to the AAQG 9017 project leader Michele Gagne of Bell Helicopter at [mgagne@bellhelicopter.textron.com](mailto:mgagne@bellhelicopter.textron.com).

Once AS9017 has been published, please e-mail any questions to the assigned AAQG document representative through the IAQG Web site at <http://www.iaqg.sae.org/iaqg/publications/AAQGstandardsregister.pdf>.

### **References and Notes**

1. IAQG (AS/EN/JIS-Q) 9100—Quality Management Systems—Aerospace—Requirements, IAQG, 2009.
2. Aviation Critical Safety Item Handbook—JALC, 14 September 2007 Draft.
3. Public Law (P.L. 108-136 Sec 802)—Quality control in procurement of aviation critical safety items and related services. November 24, 2003.

Jim Clifford is a member of the AAQG AS9017 writing team, a member of the IAQG Requirements and 9100 teams, and is a voting member on the U.S. Technical Advisory Group to ISO/TC 176. He represents the Pratt & Whitney Group of United Technologies Corporation. Clifford has extensive knowledge of aerospace quality systems and more than 30 years of practical experience in the various disciplines of quality. He has an MBA from the University of Connecticut, a bachelor's degree in administrative science from Central Connecticut State University, and is a member of the Beta Gamma Sigma International Honor Society.

## AVIATION, SPACE & DEFENSE QMS TRANSITION PERIOD BEGAN JANUARY 1, 2010

by Buddy Cressionnie

As the AS9100 Rev C nears its one-year anniversary of release, the transition period for Aviation, Space & Defense (AS&D) has been published with a January 1, 2010, start date. In the Americas, the AS&D QMS documents, referenced in this article as AS91XX, were published as follows:

- AS9100:2009, Rev C—Requirements for AS&D Organizations—Published January 2009
- AS9110:2009, Rev A—Requirements for Aviation Maintenance Organizations—Published June 2009
- AS9120:2009, Rev A—Requirements for AS&D Distributors—Published June 2009

The reason for the delayed transition period was threefold:

- First, the delay of the completely rewritten AS9101

(Audit Requirements for AS&D Organizations). This standard will be used on all transition audits replacing the current AS9101, AS9111, and AS9121 standards. The AS9101 standard adds requirements and complements other ISO auditing standards and requires a process-based approach to conducting the AS91XX audits.

- Second, the new AS9104/1 (Requirements for AS&D QMS Certification Programs) rules will be followed starting with each organization’s transition audit to AS91XX.
- Third, the desire for the AS&D user community to become familiar with the new and revised requirements in AS9100C prior to the introduction of certification audit scheme changes. The AS9101 and AS9104/1 are expected to be released in the first quarter of 2010.

The transition period timeline was approved at the Munich IAQG meeting in October 2009 and communicated to users and stakeholders in a message from the Other Party Management

Team Chair in November 2009 (see Figure 1). The transition period starts with the development of sanctioned auditor training materials that should be complete by the end of April 2010. In May 2010, certification of organizations can start after the Certification Bodies (Registrars) are accredited to new requirements and auditors have taken the sanctioned auditor training. On July 1, 2011, organizations will no longer be able to become initially certified to AS9100 revision B. All organizations will need to be complete with their transition by July 1, 2012.

## CQSDI UPDATE

by Mike Swenson and Debra Harrison

The Conference on Quality in the Space and Defense Industries is in full swing with registration available on our Web site at <http://www.asq.org/conferences/aviation-space-defense/index.html>. We will gather at the Radisson at the Port in Cape Canaveral, FL, March 15–16. We have some outstanding speakers lined up for keynote and featured speaker slots as well as powerful panels and special topics.

Our three panels will address the following areas:

**Reforming Acquisition Reform:** Topics on what went wrong or right with acquisition reform will be discussed. What is happening in acquisition processes

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### 91XX:2009 30-Month Transition Schedule



today? The panel will be made up of speakers from NASA, DCMA, and the Navy, and an IAQG representative from Parker will discuss the Supply Chain Handbook.

**Reducing Risk Through Early Quality Involvement:** Topics on early quality in requirements, design, and supply chain will be discussed. Our planned featured speaker is a VP of quality from Northrop Grumman, John Chino. Panelists include a LM-F35 chief engineer and two speakers on early quality in the design from industry.

**Emerging Quality Threats in the Value Chain:** Topics will cover current threats to our industry and supply chain. There will be a focus on quality issues, program execution, and the financial state of the supply chain. Our planned featured speaker leading into the panel is Patty Gargulinski-MDA Targets PM. Panelists will be from Honeywell, NASA, and the Army.

**Special Topics:** The special topics could possibly focus more on threats, such as counterfeit parts (MDA/NASA), and more on design quality with a panel of academic experts and a well-known author.

**Keynote Speakers:**

**DOD—Vice Admiral Architzel**, Principal Deputy Assistant Secretary of the Navy (Research, Development, and Acquisition)

**NASA—NASA Administrator Bolden or an Associate Administrator-(Invited)**

**Industry—Dennis Mullenberg**, Executive Vice President, The Boeing Company, President and Chief Executive Officer, Integrated Defense Systems

**Industry—Wanda Austin**, President and CEO of The Aerospace Corp. (Member on the Augustine Commission)

We hope to see you there!

## **MEMBER UNIT SATISFACTION AND LOYALTY STUDY NOW OPEN**

The annual ASQ [membership and loyalty survey](#) is now open. Your input provides guidance for creating opportunities focused on your needs, and allows ASQ to provide the products and services that are beneficial to you. As a thank you, participants will be entered into a drawing to win one of eight \$25 ASQ Bucks. The study will be open through February 28. Please take the time to provide this valuable feedback.



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