

Speaking with one voice

Boeing-developed process streamlines supplier quality efforts for aerospace firms

By DEBBY ARKELL

Imagine you're a parts manufacturer or service provider for the aerospace industry. Your work spans multiple commercial and military platforms, and your customers include some of the biggest names in the business.

Each company you supply has its own quality guidelines and documentation,

sometimes involving multiple processes. Each company also audits your quality processes. Sometimes they'll send to your site multiple representatives, one for each program of theirs you support.

Sound inefficient? That's exactly the conclusion Boeing Quality employees made. They quickly set out to partner with others in the aerospace industry to find a better way to ensure quality compliance in the supply base. Thanks to their efforts, Boeing has been able to streamline its processes in this area. This lets Boeing spend

more time being proactive with suppliers and makes suppliers more efficient by reducing the number of quality-compliance processes they must tackle.

"Following the Boeing-McDonnell Douglas merger we realized the military and commercial sides of the business shared a lot of the same suppliers, and we were sending them different requirements for very similar parts," said John Eash, Integrated Defense Systems Supplier Quality director. "We realized it was not efficient for us to operate that way, and we could be a

Gordy Barnes (right), Global Partners Field Representative-Northwest Region and Aerospace Industry Experienced Auditor, works with JD Ott Company Shop Inspector Bob Martin on a 747 Main Landing Gear Anti-skid Transducer Support. Now that quality auditors such as Barnes no longer have to perform system audits at supplier locations, they can look at specific factory issues and be more proactive with the supply base.



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much better customer to our suppliers if we made some improvements.”

Sponsored by the Procurement Quality Integration Team, an enterprisewide sub-team was formed to integrate Commercial Airplanes and IDS quality oversight into common processes and tools, and to serve as a forum to share best practices.

The team developed a new supplier quality-management-system approval process called ICOP, for Industry Controlled Other Party. This process allows the recognition of suppliers’ accredited aerospace quality-management-system certificates from third-party certification/registration bodies.

These certification/registration bodies, hired by suppliers, hold suppliers accountable to a single industry quality management standard—AS9100, or its international equivalent. The industry holds the third-party entities accountable to a common process for accreditation and certification.

COMMON SET OF RULES

Boeing worked with aerospace participants from around the globe to further develop the ICOP oversight process into a common set of worldwide requirements and operational guidelines. These have been adopted worldwide through the International Aerospace Quality Group.

ICOP ultimately eliminates the need for individual aerospace companies to perform unique quality audits. It establishes a common set of rules to which all suppliers worldwide will be measured—all with aerospace industry oversight.

“Implementing ICOP in the supply base is one of many things we’re doing to support the Global Sourcing initiative,” said Mike Song, Procurement Quality Assurance director for BCA. “Because of the number of suppliers our business units share, there are tremendous opportunities for us to streamline and simplify our processes and for us to work together at the industry level to help our suppliers while meeting customer expectations.”

ICOP allows Boeing to retain a level of engagement with its suppliers by having control over the auditors and the certification/registration bodies that certify the auditors.

Boeing takes its quality management a step further by assigning Oversight Representatives to support industry oversight of the ICOP scheme. The representative’s role “is key to ensuring integrity of the ICOP process,” Song said.

Since ICOP’s debut in July 2005, 70 percent of Boeing’s suppliers have obtained accreditation through the new process.

How acronyms help spell quality

We can’t escape acronyms; that’s a fact of life. Yet the quality compliance side of the aerospace industry seems to have more than its share. Here’s a list of some of the important acronyms used when talking about quality compliance.

IAQG: The **International Aerospace Quality Group** is a cooperative body responsible for improving quality processes throughout the aerospace supply chain. Broken into three groups representing Europe, the Americas and Asia Pacific regions, IAQG comprises representatives of all major aerospace businesses worldwide. Each of the three sectors of IAQG recognize each other’s standard—eliminating the need for a manufacturer to perform quality system audits of suppliers in other countries.

AAQG: The **Americas Aerospace Quality Group** is a subgroup of the IAQG responsible for improving quality processes at businesses in the Americas. This group adheres to the AS9100 quality standard (see below) and recognizes quality standards held by the other two quality groups.

EAQG: The **European Aerospace Quality Group** is a subgroup of IAQG responsible for improving quality processes at businesses in Europe.

APQG: The **Asia Pacific Quality Group** is a subgroup of IAQG responsible for improving quality processes at businesses in the Asia-Pacific region.

AS9100: The aerospace standard for quality management systems in the Americas.

ISO9001: An internationally recognized quality management system standard.

IAQG OPMT: The **Other Party Management Team** is an IAQG subcommittee that oversees sector management structures, accreditation and certification bodies, aerospace auditors and auditor competency training, and conducts database review for all global sectors.

HERE’S THE PAYOFF

The approach is paying off for Boeing and its suppliers. Italian supplier Logic, which manufactures environmental control systems for CH-47 and CH-46 programs among others, is one such beneficiary.

Nicola Ghilioni, Logic’s Quality Assurance director, noted that obtaining its AS9100 certification has helped the company become more efficient, improving on-time deliveries and product quality while reducing cost and defects. It also has helped them implement Lean manufacturing processes.

“Since our accreditation to AS9100, we now have a standard method in conducting our First Article Inspection in accordance with AS9102 (a complement of

“We could be a much better customer to our suppliers if we made some improvements.”

—John Eash, Integrated Defense Systems Supplier Quality director, on the benefits of streamlining supplier quality processes

AS9100),” Ghilioni said. “This alone provides our customers with accurate data in defining and ensuring manufactured items meet the approved Engineering specifications and requirements.”

“ICOP frees us to engage with our customers and focus on their expectations, with

improved performance and satisfaction,” he added.

Logic now has a variety of meaningful matrixes to help its departments measure the effectiveness of processes and improvements, as well.

ICOP helps Boeing use its resources more efficiently, first and foremost giving Boeing one face and one voice to its suppliers. Also, instead of assessing suppliers’ quality systems through its own second-party audits, Boeing Quality organizations now are free to look at specific factory issues and be more proactive with the supply base.

“Prior to ICOP, we were so busy conducting audits we didn’t focus as much on Boeing-specific risks and other issues relative to suppliers,” Song said. “Now we are able to conduct supplier risk assessments and focus our efforts where needed. This is having a notable effect on our quality trends; nonconformance and other issues are definitely improving.”

“We all understand the importance of supplier quality to our customers,” Eash said. “As we focus on what Boeing does well, we will be relying more and more on our suppliers. We cannot lose sight of the importance of having the right tools and processes in place to maintain quality. ICOP and the industry’s adoption of these processes is just one example of how Boeing people can work together to improve efficiency and quality in the worldwide supply chain.” ■

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