NADCAP Certified Suppliers, a cut above the rest !

Nadcap represents an unprecedented, co-operative industry effort to improve quality while reducing costs throughout the aerospace and defence industries. It is an approach to conformity assessment that brings together technical experts from all over the world to establish requirements for accreditation, approving suppliers, and defining operational program requirements. It promotes a standardised approach to quality assurance and a reduction in redundant auditing throughout the aerospace industry.

Over the past two years, the aerospace industry has seen record growth. A Price Waterhouse Cooper (PWC) report from 2012 showed that the industry increased large commercial aircraft output by 18% in 2012 to a new record, and captured more than 2,000 large aircraft orders for the second consecutive year. This increase in demand may not maintain the rate it has held for the past two years; however analysts from KPMG, PWC, and Deloitte agree that due to the increased demand for air travel both in commercial and freight transportation, and with a growing backlog of demand, supply chains will be pushed for greater output in the next two decades.

In an industry where quality is of critical importance, and in an environment where high output is necessary, suppliers are under more scrutiny than ever before. If parts require rework, or worse, require scrapping, this increases delivery time, delays the backlog of work and reduces margins. Quality is so important that in a 2012 KPMG survey of over 100 top level aerospace and defence executives, quality of product and service was considered to be almost as important as the customer relationship and price competitiveness. The Nadcap program is designed to provide a cost-effective consensus approach to special process and product control.

Improved quality
As a program, the goal of Nadcap is to promote quality. In a 2011 survey of over 1,500 Nadcap accredited respondents, 85% felt that Nadcap has improved their levels of quality. Further to this, the 20th anniversary survey of 1,100 Nadcap accredited respondents in 2010, reported that Nadcap has improved standardisation (60%), increased sales, or attracted new business (54%) and increased productivity (15%). This is on top of reducing escapes (44%), reducing rework (41%), and reducing scrap (35%). This level of quality and business improvement adds overall value to an organisation, as agreed by 80% of the respondents to an IAF survey of 4,000 suppliers in 2011.

Individual customer audits reduced to one industry audit
Before the Nadcap program was founded in 1990, suppliers had to host audits from all

of their aerospace customers to ensure the parts being produced were of sufficient quality. This system had many issues. For suppliers, it meant that they had to receive all of their customers on site to audit their work. This took up time, and often involved redundancy as items were being audited several times over. The intent of Nadcap is that the supplier only has one audit incorporating the requirements of all their prime subscribing customers, giving them more time to spend on completing their orders and increasing their overall productivity while continually improving quality.

Customer audit converted to industry audit
The move from multiple audits to a single audit also has implications for the auditor. Before Nadcap, prime contractors would send their staff auditors who were focussed on their company requirements. Nadcap is a second party audit process. Auditors have no quotas for NCRs, and have no special interest when visiting the site. In fact, they are not allowed to audit companies with which there may be a conflict of interest, for example if they used to work or consult there. This benefits suppliers as it means Nadcap is an unbiased certification program.

Passive isolated suppliers transformed into active and collaborative suppliers
The Nadcap program is collaborative. Nadcap meetings are held three times a year in locations around the world so that primes and suppliers can come together and discuss the future direction of Nadcap and technical audit requirements. This means suppliers have a voice in how they are to be audited. There is also direct representation for suppliers on non-technical issues through the supplier support committee (SSC). This is a group of suppliers who volunteer their time to work on systemic issues within the program and industry which affect suppliers, such as redundant audits.

Nadcap compliments other quality systems
Nadcap is not an accreditation which stands alone; in fact suppliers typically hold AS9100 before they apply for a Nadcap audit. However while these are both quality focussed audits, they look at very different things. AS9100 is said to be a mile wide and an inch deep while Nadcap is an inch wide and a mile deep! Nadcap focusses on job audits as well as paper audits, and the auditors write up any non-conformance to the Nadcap checklist. This ensures the highest level of standardisation and quality control, enabling the supplier to say with confidence that their quality is second to none.

Feature on the qualified manufacturers list (QML)
The QML is made up of suppliers who are automatically added as soon as they achieve Nadcap accreditation. This is publicly available so companies can use it to find suppliers by special process accreditation, location, and other criteria. This is an excellent promotional tool for any supplier looking to gain new contracts within the aerospace

industry.

Supply chain flow down
A strong supply chain can make all the difference when working to tight deadlines with even tighter margins. Nadcap supports an improvement in quality both through production, but also through better traceability. Nadcap works through the chain and enables companies to know how and where the Nadcap philosophy has been applied. The results of a 2011 Nadcap Supplier Survey show that Nadcap has helped improve flow down, with 43% saying that they never or rarely have an issue with prime flow down (up from 33% in 2009), and 41% saying they never or rarely have an issue with sub-tier flow down (up from 38% in 2009).

Recognition as being the very best
Nadcap is viewed by many accredited suppliers as the most difficult accreditation to achieve. This may be seen as a downside of Nadcap; however as a supplier in an industry where quality is so crucial, and where mistakes can cost lives, achieving such a stringent accreditation in fact makes a company much more competitive against other suppliers which are not accredited. This also applies to other industries. If a supplier can achieve a Nadcap audit, then they can feel confident that they will succeed in any audit. Indeed many Nadcap accredited companies cite their status as being instrumental in getting work in other industries such as nuclear, medical devices, and automotive. They can say with confidence that what they produce is of the highest quality. That is something to be proud of, and gives a competitive edge against suppliers from other countries who undercut the market through reduced prices.
These examples show how Nadcap can provide a competitive advantage for suppliers in the aerospace industry. Nadcap is now recognised as a pre-requisite for suppliers who want to gain new contracts or maintain their current ones.

What is Nadcap?
Historically, aerospace companies audited their supply chain to their own quality requirements to verify compliance. For suppliers with multiple aerospace customers, there was at least one audit per customer although, as the parts they were supplying were often used in identical or similar applications, the requirements were comparable. These fundamentally duplicate audits were redundant and simply added to the supplier workload, without adding value. For the primes, conducting their own audits similarly meant duplication of effort, redundant audits, unnecessary administration and, ultimately, higher cost for no added value.

Then, in November 1989, a US Government/Industry Equal Partners Conference recommended a consensus solution to the duplication of supplier quality assurance

systems. In July 1990, the not-for-profit Performance Review Institute was incorporated to administer the Nadcap program. Nadcap is an industry-managed approach to conformity assessment that brings together technical experts from both industry and government to establish accreditation requirements, accredit suppliers and define operational program requirements. This results in a standardised approach to quality assurance and a reduction in redundant auditing throughout the aerospace industry.

Now with over 50 major aerospace prime subscribers, the Nadcap program conducts nearly 5,000 audits per year across a range of special processes/products, including chemical processing, welding, heat treatment and non-destructive testing. New accreditations are added as requested by industry.

www.pri-network.org/Nadcap/