

Nadcap: An International Industry-Managed Program for NDT

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Abstract. The leading worldwide cooperative program of major companies in the aerospace industry is designed to manage a cost-effective consensus approach to special processes and products.

Non destructive Testing (NDT) is one of the major special processes in this program. For the most of the suppliers in the aerospace industry in Europe, Nadcap will be a powerful incentive to improve their NDT special processes.

1. Introduction of Nadcap

Nadcap started in 1985 in the United States to develop a cooperative program of major companies to duplicate supplier quality assurance systems. After 5 years in progress the activities were focussed to the aerospace industry. In the 90's the Nadcap program changed to a leading worldwide cooperative industry-managed program. Nadcap is Performance Review Instituts (PRI) brand name for this aerospace program. It is not an acronym today. Nadcap used to be an acronym NADACP (National Aerospace and Defence Contractors Accreditation Program) but was changed to Nadcap in recognition of the globalization of the program.

1.1 Structure and organisation of Nadcap

1.1.1 PRI Board of Directors

Executive leaders of the prime companies are representing the board of directors.

Major activities are:

Legal entity

Set policy

Fiduciary responsibility

Provide the vision

1.1.2 Nadcap Executive Strategic Planning Board

Senior quality leaders of the prime companies are representing the Nadcap Executive Planning Board (NESPb).

The task of the NESPb is:

Develop strategic plan and vision
Promote continuous improvement
Support launch of new business
Provide the vision

1.1.3 Nadcap Management Council (NMC)

Senior quality leaders and Managers of the prime companies are representing the Nadcap Management Council (NMC).

The responsibilities of the NMC are:

Oversee operation of Nadcap
Task group coordination and development
Identify, develop and deploy improvement

1.1.4 Nondestructive Testing (NDT) Task Group

Technical experts, Level III (NDT) of the prime companies are working together in the NDT Task Group.

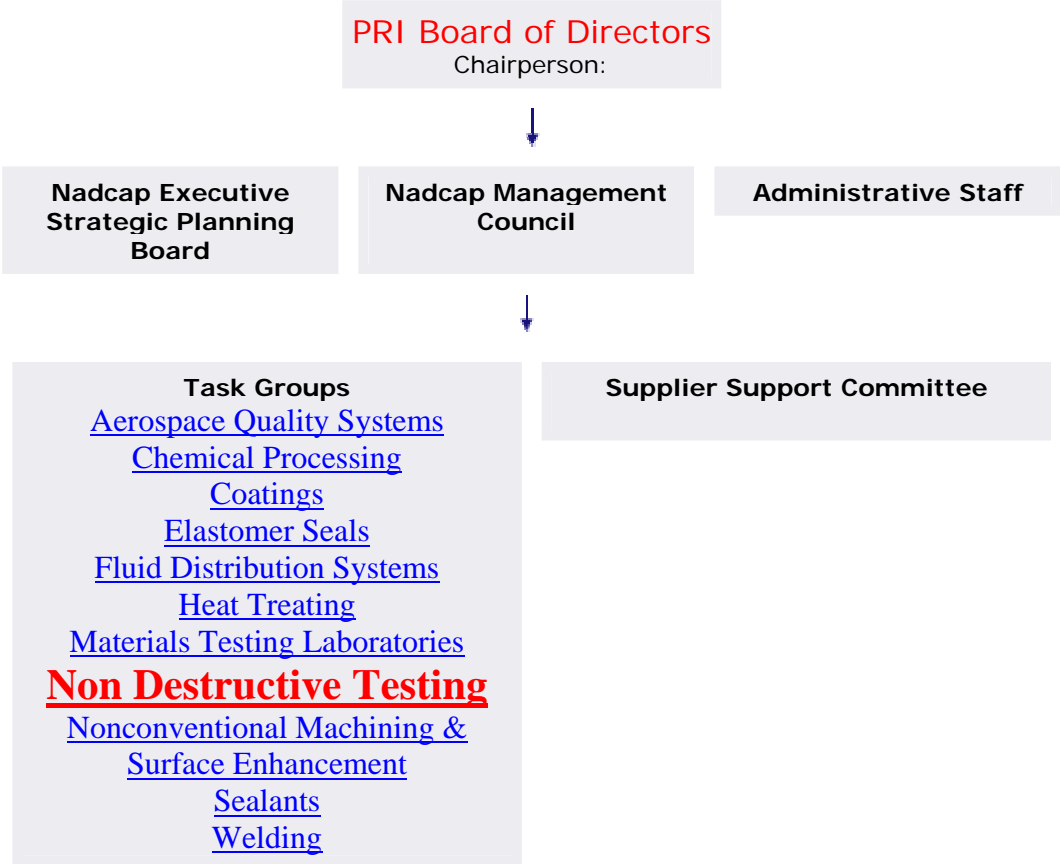
The major activities of the NDT Task Group are:

Determine requirements
Develop documents
Review audit reports
Final decision on accreditation
Accept corrective action

The NDT Task Group supports the following NDT methods:

- Liquid Penetrant
- Magnetic Particle
- Ultrasonics
- Radiography

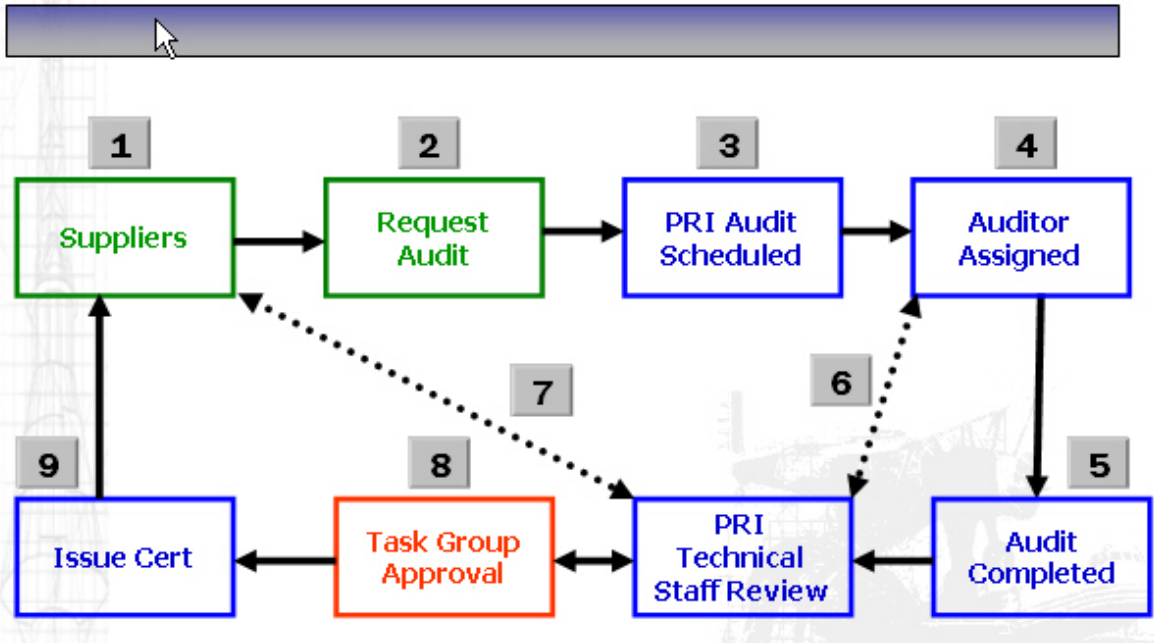
Organization Structure of Nadcap



2. Nadcap eAuditNet Process

eAuditNet is an online system for everything relating to Nadcap audits. It is a web based system facilitating the operation of an entire organisation, linking companies throughout an industry across the world and promoting continuous improvement in quality. On the eAuditNet , suppliers can obtain commodity specific preliminary questionnaires and sent to PRI to schedule the audit. The checklists for the different methods are implemented in this electronic system and will help suppliers to complete internal preparation for their Nadcap audits. Also the Nadcap auditors are conducting the audits based on the checklists. Post-audit, suppliers can find details of their nonconformances and respond to them, and subsequent Staff Engineer from PRI queries on the eAuditNet. After the final Task Group Approval the supplier gets the PRI Nadcap accreditation. For the first audit (initial) the accreditation is typically valid for one year. The Nadcap merit program gives the possibility for suppliers to get extended frequency up to 2 years.

Nadcap eAuditNet Process

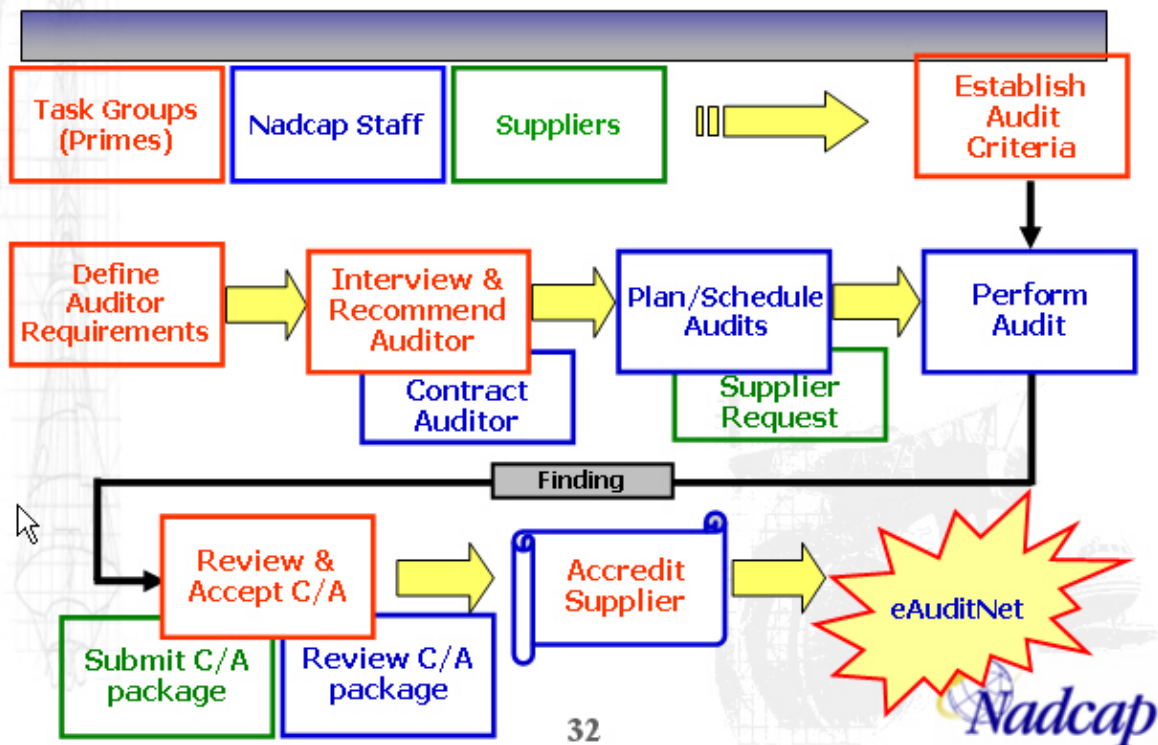


3. Nadcap Process

Prime contractors, suppliers and government representatives of the aerospace industry work together in order to establish requirements for accreditation, approve suppliers and define operational program needs. Unlike traditional third-party programmes, this process results in a standardised approach to quality assurance and a reduction in redundant auditing throughout the aerospace industry. The benefits of improvements resulting from Nadcap are:

- Reduces costs through improved standardisation
- The establishment of stringent industry consensus standards
- The replacement of routine auditing of suppliers with one approved through a consensus decision-making process of members from the user community
- The standardisation of audits and technical requirements
- Providing of more frequent audits for primes and fewer audits for suppliers

Nadcap - Industry Working Together



4. Conclusion

Currently 30 prime contractor companies are member of the NDT task group, most of which require Nadcap accreditation from their suppliers. Meanwhile over 970 suppliers worldwide and over 260 European suppliers in the aerospace industry are Nadcap approved. Nadcap has conducted 785 audits for NDT in 2005.

For the most of the suppliers in the aerospace industry, Nadcap will be a powerful incentive to improve their quality system and their NDT special processes.