



The 7th International Scientific Conference
**“DEFENSE RESOURCES MANAGEMENT
IN THE 21st CENTURY”**
Bra ov, November 15th 2012



**THE MANAGEMENT OF THE ARMED FORCES CERTIFICATION
SYSTEM**

LTC. ENG. Marius CONSTANTINESCU

Ministry of National Defence/Armaments Department/Military Body for Certification,
Accreditation and Surveillance/Bucharest/Romania

Abstract:

In Romanian Armed Forces, Military Body for Certification, Accreditation and Surveillance (MBCAS) is responsible for management of certification, accreditation and surveillance activity. MBCAS performs second part audits at MOND suppliers and issues a two years certificate based on AQAP requirements.

Romania, as part of NATO country ratified STANAG 4107 - Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publication. MBCAS has the obligation to organize and conduct the activities that result from STANAG 4107 requests.

AQAP family represents ISO 9001 family plus specific, supplementary, requests. For this reason I will have a short presentation of ISO 9001 family and an enumeration of the most AQAP.

Based on certifies emitted, the MBCAS have realized the List of Certified Suppliers (LCS). The LCS shows that the suppliers have been certified by the OMBCAS and fulfilled the AQAP requests.

1. Introduction

Based on 2004 NATO admission, Romanian Armed Forces had to adapt Quality Assurance System to fulfill the NATO requests. The main goals of the Romanian Armed Forces were interoperability with other Alliance Armed Forces and the common denominator (language) in discussions between different quality assurance structures.

In order to fulfill these goals, Armaments Department through MBCAS, was responsible for adapting national standard and regulation. These requests oblige MBCAS to ratify STANAGs and to adopt AQAPs.

The challenge was to be sure that MOND suppliers are able to deliver NATO interoperable products to the Armed Forces and to have similar procedures with other countries.

2. Role of Military Body for Certification, Accreditation and Surveillance in the Romanian Armed Forces.

Military Body for Certification, Accreditation and Surveillance (MBCAS) from Armaments Department, Management Resource for Endowment Directorate, is in charge with quality evaluation, certification and surveillance at Ministry of National Defense (MOND) suppliers.

According with competence and responsibility domain, MBCAS has the following responsibilities:

THE MANAGEMENT OF THE ARMED FORCES CERTIFICATION SYSTEM

- Elaborates, on demand, proposals regarding quality management system evaluation and certification, according NATO quality assurance agreements – AQAP 2000 series;
- Performs quality management system audits at MOND suppliers;
- Performs surveillance audits and according with results (observation) propose to maintain, suspend or withdraw of quality certification;
- Supporting document, implement and maintain quality management system in Armaments Department;
- Perform quality evaluation, certification and surveillance at the products and services suppliers for armaments and major equipments for NATO countries, when requested;
- Elaborates specific procedures for quality evaluation, certification and surveillance, harmonized with NATO country procedures and filled in with NATO AC/327/LCMG Group specific request.

In accordance with the competence mentioned above representatives of MBCAS perform quality management system audits at MOND suppliers.

As a result of certification activities Armaments Department issued a certificate that validates quality management system conformity with AQAP family. This certificate is signed by state secretary for armaments and has two years validity.

3. Quality Assurance System in the Romanian Armed Forces (ISO 9000 family)

AQAP family represents ISO 9001 family plus specific, supplementary, requests. Therefore I will briefly introduce ISO 9001 family.

The ISO 9000 family of standards is related to quality management systems and designed to help organizations ensure that they meet the needs of customers and other stakeholders while meeting statutory and regulatory requirements related to the product.

The standards are published by ISO, the International Organization for Standardization, and available through National standards bodies.

The requests of quality management system specified in this International Standard are complementary to the products requests.

This International Standard can be used to evaluate the organization capabilities to satisfy the clients, legal and organization regulation requests.

This International Standard promotes a **process based approach**, to develop, implement and improve the quality management system efficiency. Applying a process system into an organization, together with process interaction and identification, as well as process management in order to obtain the intended result, can be named **process based approach**.

The methodology named PDCA (Plan – Do – Check – Act) can be applied to the process:

Plan – State the necessary objectives and process to obtain the results according to the client requests.

Do – implement the process.

Check – monitor and estimate the process and products and report the results.

Act – acting for continuing improving of process performances.

The standard content is:

THE MANAGEMENT OF THE ARMED FORCES CERTIFICATION SYSTEM

Chapter 1: Domain

Chapter 2: References

Chapter 3: Terms and definitions

Chapter 4: Quality management systems

Chapter 5: Management responsibility

Chapter 6: Resources management

Chapter 7: Product achievements

Chapter 8: Estimation, analysis and improvement

The first three chapters treat area covered by the standard, the main exclusion, references and definitions for client, organization and supplier terms.

The main chapters of this standard are 4,5,6,7 and 8. This last five chapters deal with the requirements that organizations wishing to meet the standard have to fulfill.

The standard specifies that the organization shall issue and maintain the following six documented procedures:

- Control of documents (4.2.3).
- Control of records (4.2.4).
- Internal audits (8.2.2)
- Control of nonconforming product / service (8.3).
- Corrective action (8.5.2).
- Preventive action (8.5.3).

In addition to these procedures, ISO 9001:2008 requires the organization to document any other procedures required for its effective operation.

The standard also requires the organization to issue and communicate:

- a documented quality policy,
- a Quality Manual (which may or may not include the documented procedures) and numerous records, as specified throughout the standard.
- before the certification body can issue or renew a certificate, the auditor must be satisfied that the company being assessed has implemented the requirements of sections 4 to 8.
- sections 1 to 3 are not directly audited against, but because they provide context and definitions for the rest of the standard, their contents must be taken into account.
- after evaluation a third party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9001.
- the certificate is limited by a certain scope and will display the addresses to which the certificate refers.
- An ISO 9001 certificate is not a once-and-for-all award, but must be renewed at regular intervals recommended by the certification body, usually once every three years.

ISO 9001:2008 Quality management systems — Requirements is supplemented by two other standards:

- ISO 9000:2005 Quality management systems — Fundamentals and vocabulary and
- ISO 9004:2009 Managing for the sustained success of an organization — A quality management approach.

Only ISO 9001 is directly audited against for third party assessment purposes

THE MANAGEMENT OF THE ARMED FORCES CERTIFICATION SYSTEM

4. STANAG 4107 – Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publication – adoption and obligation.

Romania, as part of NATO country ratified STANAG 4107 - Mutual Acceptance of Government Quality Assurance and Usage of the Allied Quality Assurance Publication.

The aim of this STANAG 4107 is:

- to set the process, procedures, terms and conditions under which Mutual Government Quality Assurance of defense products is to be performed by the appropriate National Authority of one NATO member nation, at the request of another NATO member nation or NATO Organization, and
- to standardize the development, updating and application of AQAP on the basis of the concept of quality assurance in the procurement of defense products.

By ratifying STANAG 4107, participating nation agree that the appropriate National Authority in a supplying country will provide in its country, upon request by the appropriate National Authority in an acquiring country or NATO organization, a Government Quality Assurance (GQA) service to orders in all areas of defense products and subject to the conditions contained in this STANAG.

The procedures for requesting GQA and selecting an appropriate AQAP are:

- AQAP shall be requested in accordance with AQAP 2070;
- This request shall contain all necessary information;
- The delegator shall ensure that the delegate receives a copy of the contract;
- The selection of AQAP shall be in accordance with AQAP 2009.

GQA shall be implemented based on the guidance given in AQAP 2070 and according to agreement between the Delegator and the Delegatee. GQA shall address the following topics, unless otherwise agreed:

- Notification of unsatisfactory conditions;
- Certificate of conformity (C of C);
- Release for delivery;
- Deviation permits and concession;
- Delegator's participation at the performance of the contract at the supplier premises.

5. Using AQAP in Romanian Armed Forces

As a consequence of signing STANAG 4107, the GQA activity in Romanian Armed Forces is governed (but not limited) by the guidance defined in following publications:

- AQAP 2070 – Mutual Government Assurance Process.
The intent of this publication is to standardize and harmonize the process by which the Participating Nations request and provide GQA to each other. Also, this publication provides instruction detailing what is considered the minimum to fulfill Nations' commitments within STANAG 4107.
- AQAP 2105 – NATO Requirements for Deliverable Quality Plans.
The purpose of this publication is to define the requirements for Quality Plan in accordance with AQAP 2110/2120/2130;
- AQAP 2110 – NATO Quality Assurance Requirements For Design, Development and Production;

THE MANAGEMENT OF THE ARMED FORCES CERTIFICATION SYSTEM

This publication contains requirements which, if applied appropriately, provide confidence in the supplier's capability to deliver products that conform to Acquirer contract requirements.

- AQAP 2120 – NATO Quality Assurance Requirements For Production;
This publication contains the requirements that address to the system that provide products, in order to satisfy the contract requirements.
- AQAP 2130 – NATO Quality Assurance Requirements For Inspection and Tests;
This publication is mainly focused on requirements for inspection and tests for systems that provide products that have to satisfy the Acquirer contract requirements.

Also during the process of GQA we use the following publications:

- AQAP 2131 – NATO Quality Assurance Requirements For Final Inspection;
- AQAP 2210 – NATO Supplementary Software Quality Assurance Requirements to AQAP 2110; Etc.

6. Conclusions

The GQA is a complex activity performed by the MBCAS.

The MBCAS performs GQA based on MOND Suppliers requests.

Based on certifies emitted, the MBCAS have realized the List of Certified Suppliers (LCS). The LCS shows that the suppliers have been certified by the OMBCAS and fulfilled the AQAP requests.

According to STANAG 4107, the GQA with USA is unrolled based on mutual agreement. The Armaments Department is in final stage of signing a mutual agreement for the GQA activity.

Due to ratification of STANAGs and AQAPs adoption, combined with MBCAS audits, suppliers modified Quality Management System, being now competitive and compatible with suppliers from other NATO countries.

By adopting AQAP 2070 MBCAS founded common and conform procedures with the rest of NATO countries in order to answer on time and correctly to the GQA requests.

References:

[1] ISO 9001/2008

[2] The MBCAS responsibilities.