

Munition Recognition Program

Instilling Trusted Partnerships

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Wouldn't it be nice if...



... nations had a level of confidence that the ammunition stored, handled, transported and used by its partner nations has remained safe for service throughout its logistical life cycle?

Aim

- To inform on the intent and value of a Recognition Program in support of a nation's Munitions Safety Management System*.

*Munitions Safety Management System: a national munitions safety authority, its supporting regulatory framework and implementation. The aim of a munitions safety management system is to:

- minimise risks by introducing safe munitions;
- ensure the safety for service of munitions during their operational and logistical life; and
- integrate munitions risk management into planning and operations.

Outline

- Setting the Stage – NATO's Airworthiness Policy
- Part 1 – Existing NATO Recognition Program
- Part 2 – Application of the NATO Recognition Program to Munition Safety
 - Problem statement
 - Desired Outcome
 - Proposal
 - Benefits
 - Questions

Setting the Stage

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NATO AIRWORTHINESS POLICY

NATO Airworthiness

- Airworthiness is about achieving an acceptable level of safety.
- While aircraft certification is a sovereign responsibility, past experience suggests that NATO should have processes and procedures in place to ensure the airworthiness of aeronautical products owned, leased, rented, or chartered on its behalf.
- NATO member nations have a responsibility to provide airworthy products to their aircrew, ground crew, passengers, and to third parties.

NATO Airworthiness Policy

- The aim of the NATO Airworthiness policy is to establish a robust framework that ensures airworthiness of aeronautical products, parts and appliances.
- The NATO Airworthiness Policy does not replace, nor is it intended to interfere with established national airworthiness policies and/or regulations.
- The policy directs implementation through Recognition of national airworthiness authorities.

Part 1

EXISTING NATO RECOGNITION PROGRAM

Existing NATO Recognition Program

- Process by which an authority **assesses** and **acknowledges** another.
- A means of instilling confidence in a nation's management and governance around equipment life cycle, including:
 - the existence of and adherence to national policies.
 - empowerment of qualified people.
 - execution of processes.
 - appropriateness and availability of tools throughout the entire life cycle of equipment.



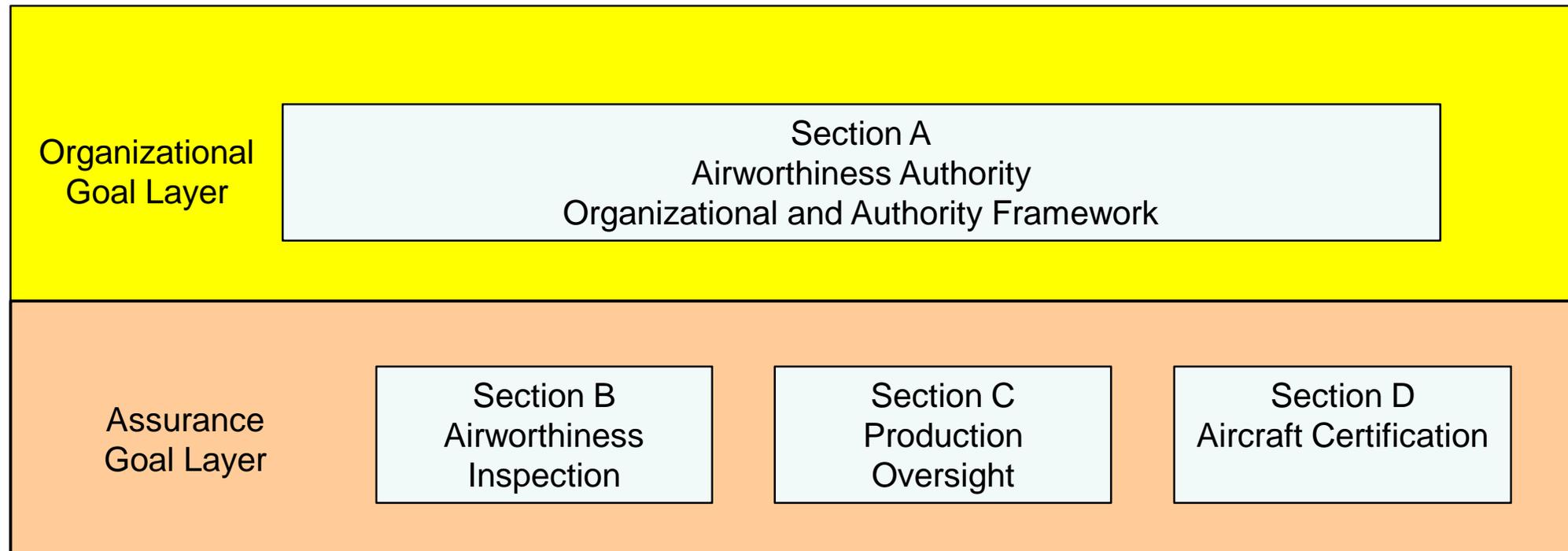
Recognition can be unilateral, bilateral or multilateral.

Existing NATO Recognition Program

- The NATO Recognition Program is a mechanism to fulfill a NATO Airworthiness policy that requires that all aircraft operated on behalf of NATO are certified as airworthy by a NATO Recognized Airworthiness Authority.
- The purpose is to gain confidence in a nation's military Airworthiness Authority.
- The NATO Recognition Program is:
 - an assessment by a NATO Assessment Team composed of a National Lead and subject matter experts provided by NATO Nations
 - mainly based on a questionnaire entitled Military Airworthiness Authorities' Questionset.

Existing NATO Recognition Program

- The MARQ addresses:
 - Organizational Goals (Section A)
 - Assurance Goals (Sections B, C & D)



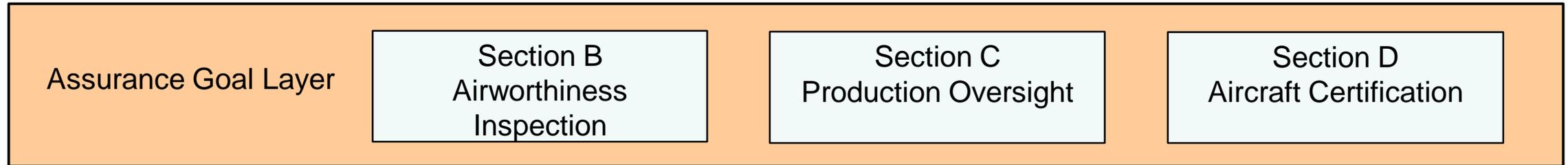
Existing NATO Recognition Program

Organizational Goal Layer

Section A
Airworthiness Authority
Organizational and Authority Framework

- 71 Questions
- 9 Critical Elements:
 - the AA's legislated authority
 - its regulation set
 - its airworthiness oversight functions
 - its technical personnel qualification and training
 - its technical guidance, tools and communication mechanisms
 - its licensing, certification, authorization and approval obligations
 - its surveillance obligations
 - its resolution of safety concerns
 - risk management

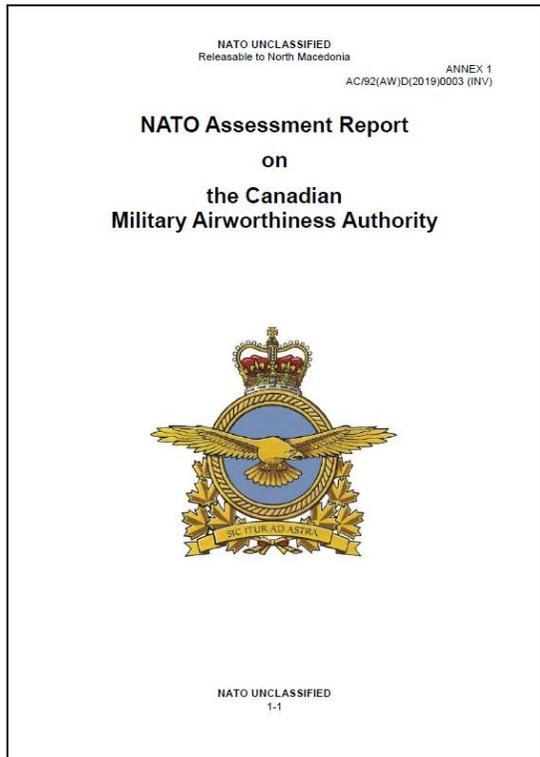
Existing NATO Recognition Program



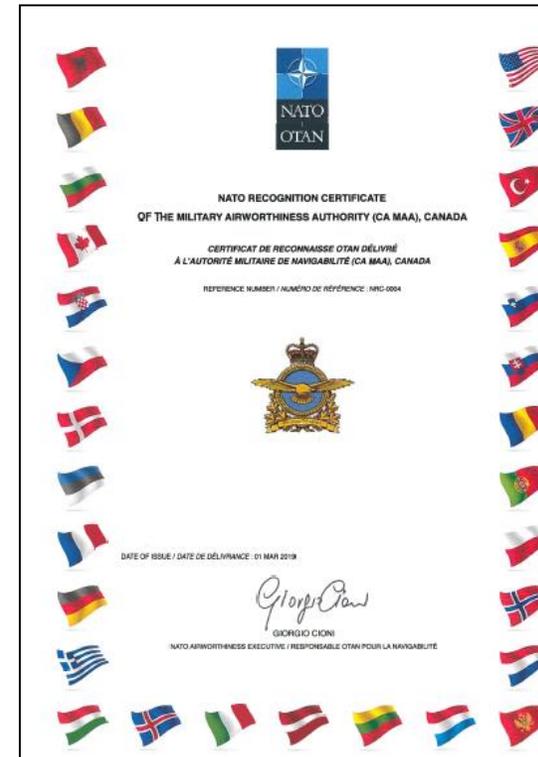
- Section B – Airworthiness Inspection
 - 40 Questions
- Section C – Production Oversight
 - 24 Questions
- Section D – Aircraft Certification
 - 27 Questions

Existing NATO Recognition Program

- NATO Assessment Report
- NATO Recognition Certificate



NATO Outputs



Existing NATO Recognition Program

- Recognition is the primary implementation mechanism for the NATO Airworthiness Policy.
- Executed through NATO's Military Committee.
- Completed/Scheduled Recognitions:

– 2018



– 2019



– 2020



– 2021



Existing NATO Recognition Program

- Airworthiness “Credits”
- Increased Flexibility and Capacity
- Continuous Improvement
- Harmonized Approach to Airworthiness

Benefits to Nations



Part 2

APPLICABILITY OF THE NATO RECOGNITION PROGRAM TO MUNITION SAFETY



Requirement for Munition Safety

- Nations must exercise due diligence in ensuring munitions provided on their behalf are safe throughout their entire life cycle.
- Many nations have adopted and implemented distinct standards to support their national munition safety management system. However:
 - National implementation of these standards may vary in their application.
 - Regulatory oversight may be very different in its execution (scope, depth and authorities).

Problem Statement

- **There is no overarching framework to support nations in establishing and implementing munition safety throughout its life cycle, providing a level of confidence with regards to a nation's munition safety management system and the safety of its munitions.**

Why is this important?

It has /may have a direct impact on interoperability, operational resilience, effectiveness and sustainability.

Desired Outcome

- Establish a robust framework that would enable nations to ensure the safety of munitions throughout their life cycle based on the principles of economy of effort and cooperation.
- Provide assurance to nations that munitions used for combined operations are certified by a recognized authority and are:
 - Safe to store – confidence in the classification, storage, handling and maintenance of munitions of or by other nation's in order to safely store with own munitions.
 - Safe to transport – confidence in the handling, packaging and transportation of or by other nations.
 - Safe to operate / operate safely – confidence that the munitions are safe to use in operations with or by other nations.

Nations become trusted partners

A Munition Recognition Program...

- Would not replace, nor is it intended to interfere with, established national munitions safety policies and/or regulations.
- Can most effectively be accomplished by:
 - understanding the functional authority organizations that are responsible for regulatory oversight of munition safety.
 - determining if the authorities meet an agreed (or at least known, provided there is a risk assessment) level of safety and apply a sufficient level of rigor and diligence in order to maintain munition safety throughout their entire life cycle.

Operational Benefits

- Interoperability. Provides Force Commanders with some assurance regarding munition safety which informs operational decisions such as the authorization to transport, maintain, inspect, store or use foreign munitions.
- Risk Reduction. By gaining confidence in the safety of another Nation's munitions, recognition reduces unforeseen transfer of risk to the front line by avoiding 'surprise hazards'.
- Enabler function. Increases flexibility, sustainment of operational capabilities through the early recognition of strengths, weaknesses, opportunities and threats; providing an ability to plan and risk manage accordingly (storage, maintenance, transportation, etc.).

Organizational Benefits

- Economy of Effort (Munition Safety “Credits”). Establishes a Trusted Partner relationship where the cost, effort and time of munition certification tests and results need not be repeated. Recognition delivers economies and efficiency by **giving credit for and leveraging the work (certification / assessments) already completed by a competent authority.**
- Consistency. Institutes and supports a more consistent and systematic approach to munition safety. Encourages the ratification/ implementation of safety standards.
- Safety Baseline. Creates a sound knowledge-base for the ongoing safety management (by all Nations) of munitions once in service.

Organizational Benefits

- Continuous Improvement / Culture. **Promotes a 'Learning Culture'** where the recognition process exposes a nation to other nations' program structure, methodologies and best practices which can be adopted to improve a nation's Munitions Safety Management System. Likewise, the recognition process, when applied by another nation's authority, **serves as an independent peer review** which can lead to positive change.
- Harmonized Approach to Regulatory Safety. Establishes a better understanding of regulatory oversight and activities between nations. **Recognition is a step towards an internationally harmonized approach to munition safety**. With a common regulatory baseline, recognized nations will be able to cooperate more easily and fully with each other during combined operations and/or collaborative projects.

Wouldn't it be nice if... we had a Munition Safety Policy...



... and a supporting Recognition Program that would give nations a level of confidence that munitions used by Allies in theatre have remained safe for service?

A Munition Safety Policy ties standards together under one framework with its execution through a Munition Recognition Program.

Questions

“Resilience is not about responding to a one-time crisis. It’s not about rebounding from a setback. It’s about continuously anticipating and adjusting to deep secular trends that can permanently impair the [core competency]. It’s about having the capacity to change before the case for change becomes desperately obvious”

The Quest for Resilience, Hamel and Välikangas, Harvard Business Review, On Point Winter 2005.

Trust...
...but verify!



Backup Slides

NATO 2030 – Proposal 3, Improved Resilience

- Allies will take a broader and more coordinated approach to resilience and will develop objectives to guide nationally-tailored goals and implementation plans, based on clearer and more measurable Alliance-wide resilience objectives.
- This will allow NATO to better advise and assess national efforts in support of NATO's collective defence and to better link resilience with the Alliance's broader posture and plans.

Multinational Ammunition Warehousing Initiative (MAWI)

- The MAWI High Visibility Project will serve as a direct enabler for NATO's three existing Battle Decisive Munitions High Visibility Projects, complementing their focus on multinational acquisition by delivering multinational storage solutions.
- The MAWI is intended to provide its participants with a scalable, expandable and flexible solution for multinationally stockpiling munitions.

AOP-6 – Land Forces Ammunition Interchangeability Catalogue in Wartime

- AOP-6 Volume I lists ammunition that is interchangeable among the NATO nations. Ammunition items listed in AOP-6 Vol. I satisfy interchangeability criteria of form, fit, and function only. Function is defined as the physical action, role or purpose of a nature of ammunition.
- AOP-6 Volume II specifies approved ammunition based on National evaluation/testing and a signed National Interchangeability Document (NID) that can be used safely and reliably in training and operations, without further authorization.