STANDARDS RELATED DOCUMENT

SRD-2009-49

NATO-US CONFIGURATION MANAGEMENT CONTRACT SCOPING TOOL

Edition A Version 1

SEPTEMBER 2016

NORTH ATLANTIC TREATY ORGANIZATION

Published by the
NATO STANDARDIZATION OFFICE (NSO)

INTENTIONALLY BLANK

NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

26 September 2016

1. The enclosed Standards Related Document, SRD-2009-49, Edition A, Version 1, NATO-US CONFIGURATION MANAGEMENT CONTRACT SCOPING TOOL, which has been approved in conjunction with AQAP-2009 by the nations in the Life Cycle Managements Group, is promulgated herewith.

3. This publication shall be handled in accordance with C-M(2002)60.

Edvardas MAŽEIKIS
Major General, LTUAF
Director, NATO Standardization Office

INTENTIONALLY BLANK

SRD-2009-49, NATO-US CONFIGURATION MANAGEMENT CONTRACT SCOPING TOOL*

The following instructions apply to using this tool: 26 Sept 2016

Purpose: The purpose of this tool is to provide a Buyer/Acquirer a quantifiable means to determine how much CM is needed on their project/program.

The MS Excel version of this tool is available at:
http://www.nato.int/structur/AC/327/introduction.html

Buyer/Acquirer is instructed to answer the questions in Column "B" of worksheet "CM Scoping Questions" from their perspective.

The column "C" is provided as supplemental information to assist the Buyer/Acquirer in better undertstanding the question, why it is being asked, provide general notes or comments, and to provide helpful references.

After answering all the questions with "Yes" or "No", go to one of the scoring tabs to convert the responses into a set of contract clauses for consideration, by using the Excel "filter" function.
When the preference is for the NATO ACMPs (STANAG 4427) approach, use the scoring worksheet entitled "NATO Build-up Clauses" and filter the B column on "Yes". The result will show a recommended set of additional contract clauses on top of the core set of requirements allready provided in ACMP-2100.
When the preference is for an EIA-649-1 approach, use the scoring worksheet entitled "EIA Tailor-Down Paragraphs" and filter the B column on "No". The result will show a recommended set of EIA 649-1 clauses for removal from the contract.

Additional Instructions

The purpose of this tool is to assist the Buyer (or Acquirer) in determining what level of contractual CM requirements to impose on a supplier. Such requirements, commonly knowns a contract clauses, can be found in the NATO ACMPs and EIA 649-1. The scoping consists of a series of questions regarding the objectives and needs of a Buyer (Acquirer) who is contemplating a procurement. This tool provides the preselection of contract clauses using the NATO ACMPs and the EIA 649-1. Note that these two Standards use different approaches.
The NATO approach uses ACMP-2100, which contains the core set of contractual CM requirements that always apply. If needed, the Acquirer may add contract clauses on top of this - the build-up approach.
EIA 649-1 contains all the contractual CM requirements. If not needed, the Acquirer may take out the contract clauses that will not apply - the tailor-out approach.
This difference in approach is the reason for filtering on "Yes" to get your suggested additional clauses in the build-up approach, and filtering on "No" to get your suggested clauses to be removed in the tailor-out approach. Regardless if which approach you choose, you should end up with the same result, content wise.
Below, we have explained how to interpret the overall outcome when using the build-up approach.
The questions aid in building up, adding to ACMP-2100, or tailoring-down of EIA-649-1, resulting in the selection of only those clauses which will benefit the buyer, and lead to "pay only for what you need".
The tool user's responses, in terms of YES, NO, or NA, will generate a profile of the through-life CM needs of the Buyer. The interpretation of the resultant profile is a follows:

a. Preponderance of NO (and N/A) answers indicates that the Buyer does not want to exercise detailed control over the configuration activities of the Supplier, and should lean towards a CM Light style, meaning very few, if any, contractual clauses that direct the Supplier to do things in a certain way, or to deliver detailed CM information during the contract (CM Light).

b. Preponderance of YES answers leads to a conclusion that the Buyer should take pains to explicitly require the Supplier to follow required CM processes, information collection and verification activities and formats, as well as control of deliverables to the Buyer that will be needed for the full life cycle of the system (CM Heavy).

c. a mix of YES and NO answers shows a need for careful consideration of contract clauses, as neither CM Light nor CM Heavy will meet the needs of the Buyer. In such cases, the profile should be reviewed and rationalized. Perhaps legal constraints required CM Heavy for some system components, but not for most. Possibly the contract being considered is for an early life cycle stage, where the depth of the CM information is not yet developed, but the higher constructs, such as external interfaces, logistic concepts, and even the product structure can, and must be defined.
(In order to get the same reasoning for the tailor-out approach, you need to change the "Yes" and "No".)

Note: *if a program involves classified information, the tool user needs to assure that the contract includes the appropriate additional*

The questions were generated by an international group of Subject Matter Experts.

*The authors of this tool assume no liability for the usage of the tool

CM Area ID	CM Scoping Question for Buyer/Acquirer to Consider	Intent of CM Scoping Question	Answer
	Environmental/Context Considerations		
ENV-01	Will this be a NATO military project?	To determine if commercial or military CM processes should prevail	?
ENV-02	Does the Buyer/Acquirer expect to be the Design Authority for this project?	To establish the level of governance (control) the Acquirer needs to have over the configuration of the system	?
ENV-03	Does the project encompass requirements definition, development, design, manufacture/production and sustainment of the product(s)?	To set bound the effort as full life cycle, or just a particular stage (or phase)	?
ENV-04	Will you require the Supplier to provide support (maintenance, support equipment, testers, spares, etc.) for the end product(s) in opertional usage?	To determine if Contractor Supported Logistics is in the plans, or whether logitics will be organic (government)	?
ENV-05	Will you require the Supplier to reconcile CM-objectives to CM-resources before starting the project?	Must match CM tasks/abilities to resources, to avoid potential for downstream misunderstandings.	?
ENV-06	Do you have a good understanding of the contract type (Firm, Incentive Fee, FPIF, CPIF, etc.) that is being proposed for the project, and does it make sense with the type of work requested (development vs. production vs. sustainment)?	To see if the Acquirer has planned the prospective procurement approach, so contractual CM requirements can be rationalized	?
	Life Cycle Planning Considerations		
LCMP-01	Do you have a formal, documented Life-cycle Configuration Management Plan (LCMP)?	To establsh that the Acquirer has in fact done his required through-life CM planning	?
LCMP-02	Are the Configuration Management Resources & Authorities defined & identified?	To ensure that the Acquirer has given thought to the governance (control) chain for CM activities, CM products and CM decisions	?
LCMP-03	Is the System subject to product, organizational, statutory or special external constraints, such as gun controls, air worthiness, environmental, legal or liability which require stringent configuration control, awareness and product traceability?	To establish if any mandatory (legally required) CM details must be defined, managed and information needs to be traceable and collected	?
LCMP-04	Does your system have internal or external interfaces that needs to be controlled?	To trigger interface planning, beyond the internal system linkages. Will drive subsequent information needs and also chains of authorities	?
LCMP-05	Is the planned contract to provide critical configuration inputs to the next life cycle stage (such as requirements or product traceability)?	To set the scene for transition planning that considers the needs of the next stages in the execution of the current tasks at hand	?
	Contractual Planning Considerations		
CMP-01	Will you require the Supplier to prepare/submit a CM Plan for this project?	If it is important to have CM deliverables, the CM process should be documented in a plan so the process can be verified for implementation.	?
CMP-02	Have you thought about how many Supplier CM personnel will be required for this project?	How many people are you willing to pay for? How many CM personnel is too many?	?
CMP-03	Is the project complexity such that the Supplier is going to need internal policies, procedures, work instructions, etc.?	How detailed should the documentation be to describe what the supplier is doing internally?	?
CMP-04	Will the Supplier's CM personnel need some amount of basic CM training, capability, certification to accomplish the project?	What knowledge, skills, abilities, education and training is required to support the project?	?
CMP-05	Will the Supplier CM process need to have a means for flowing down CM requirements to and maintaining CM control over their sub-tier supplier base?	Are you planning on having a sub-contractor, if so do they need to follow the same requirements?	?
CMP-06	Will you require the Supplier to periodically perform internal assessments of their CM process?	If the supplier CM process is new you may want to ensure they are managing process improvements by performing internal assessments. If the CM process is not new you may not have a need for the assessment results.	?
CMP-07	Will you require the Supplier to have an adequate means for manual or automated capture, processing and archive of project CM-related data?	Do you want information that the supplier is capturing about your project? If so, how do you want the information provided or safeguarded?	?
	Configuration Identification Considerations		
CID-01	Will you require the Supplier to uniquely identify and define the configuration identification (spec's, drawings, 3D datasets, etc.) of the products required for the project? [Will you task the supplier to assign all identifiers? Will you task the supplier to define and produce all the documents you need?]	To clarify if you need to have all the items and belonging descriptions uniquely identified, and if you want the Supplier to establish and assign these identifiers. A "Yes" means that the Supplier will assign unique doc numbers, part numbers, serial numbers, etc. To clarify if the supplier shall do all the documentaion-work, included defineing the need for documents (and be the owner of all documents	?

CM Area ID	CM Scoping Question for Buyer/Acquirer to Consider	Intent of CM Scoping Question	Answer
CID-02	Will more than the deliverable end item meet the definition/requirement for usage of Configuration Items/CSCIs? [Will you need to manage manage your SOIs documentation and perform its audits at more than one level?]	To make an initial assessment of your level of governance or ambition for CM regarding your SOI. To figure out if you need more than one CI for your SOI (System of Interest).	?
CID-03	CID-03: Will you require Item Unique IDentification (IUID) or Critical Safety Item (CSI) designations for the project? [Will you need to uniquely identify the components/parts for reasons caused by an Outside organization?]	To specify if you need a particular type of identifiers for some items in your SOI. (Consider to rephrasing this as a Question, and swap it with the Question in column B?) To find the needed level of uniqueness in your part identifiers.	?
CID-04	CID-04: Will you require the Supplier to prepare and maintain an indentured parts list or bill of material for the project? [Will you task the supplier to work out a structured parts breakdown of the system? Will you perform maintenance on the system? Will you let the system undergo an Midlife Upgrade? You'll get the "complete" answer after you have conducted an (Information Need Analysis - INA)]	To ensure wether you need an detailed system breakdown description or not To determine the content of one (or all) of your Baselines.	?
CID-05	Will you require the Supplier to document and maintain the Baselines for the project (typically Functional, Allocated & Product)? [Will you task the supplier to maintain (all/some) documents? You'll get the "complete" answer after you have conducted an (Information Need Analysis - INA)]	To ensure that the responsibility of documentation and maintenance of baselines are assigned. Question on which baseline types and content, and a potential distribution on the task assginement for these will be clarified by answering follow-up questions. To find out the need for BaseLines from your perspective. (and/or the content of the BLs?)	?
CID-06	Will you require formal preparation of an Interface Control Document (ICD) or Associate Contractor Agreement (ACA) between the Supplier and other Government Furnished Equipment/Property (GFE/GFP)? [Will you task the supplier to document (all/some) interfaces? Will your System of Interest (SOI) have (external) interfaces? You'll get the "complete" answer after you have conducted an Information Need Analysis - INA)]	To ensure that all external interfaces are identified and documented To discover if you have a need for an ICD in one of the mutual Baselines.	?
	Change Control Considerations		
CCM-01	Will you require the Supplier to establish a Config Change Mgmt process for internal disposition, submittal and then Buyer disposition of proposed Major (Class I) changes on the project?	Standard CM question	?
CCM-02	Will you require the Supplier to provide a DD Form 1692 equivalent data package with submitted Major (Class I) changes?	Provides an idea regarding the formality of the change process and change data to be required.	?
CCM-03	Will you require the Supplier to establish and use a Config Change Mgmt process for Minor (Class II) changes on the project?	Standard CM question	?
CCM-04	Will you expect the Supplier to follow-up on approved configuration changes to see that the changes are implemented and done so at the appropriate effectivity?	Change implementation is a key element of Chg Mgmt, but often overlooked.	?
CCM-05	Will you allow the Supplier to submit requests for delivery of end products containing non-conformances using a Variance, including DD Form 1694 equivalent data package?	Usage (or not) of non-conforming material is an important element to be determined early in the project.	?
CCM-06	Do you have program-specific guidance on how the Supplier is to classify their changes and variances on the project?	Need up-front agreement by all parties regarding definition of a Major vs. Minor (or Class I vs Class II) change.	?
CCM-07	Will the Buyer/Acquirer serve as the Change Authority for Supplier-proposed Major (Class I) changes?	All parties need to know whom the Final Change Decision Authority will be	?
CCM-08	Will the Buyer/Acquirer serve as the Change Authority for Supplier-proposed Minor (Class II) changes?	Delegation of Minor Change Authority helps the Supplier know how to properly bid the project/program.	?
	Status Accounting Considerations		

CM Area ID	CM Scoping Question for Buyer/Acquirer to Consider	Intent of CM Scoping Question	Answer
CSA-01	Will you require the Supplier to capture and report the configuration status of all CIs/CSCIs on the project?	Helps clarify whether CSA is desired by Buyer or not	?
CSA-02	Can you define the fields of CSA data that will be required for the Supplier to provide in periodic CSA reports?	Buyer needs to define future CM/CSA data needs, which will take some time and forethought	?
CSA-03	Will you require the project's CSA data to be accessible real-time via on-line database, website or tools?	How will End Users need the CSA data? Defines currency/frequency.	?
CSA-04	Will you require that the Supplier maintain a single "database of authority" for technical, configuration definition information on the project?	Pokes at the centralized vs. distributed tool approach. How will users know where the "master" data is?	?
CSA-05	Can you define the CM-related metrics that you require the Supplier to report on a periodic basis?	Consider what "Health Indicators" your project will need.	?
	Verification and Audit Considerations		
CVA-01	Will you require formal Config Audits (FCA/PCA) be performed on all project-designated CIs/CSCIs?	Helps CM leader know how to bid the CRA task	?
CVA-02	Do you intend for the Buyer/Acquirer's rep to be a formal co-chairperson at the Config Audits, including co-responsibility and co-signoff?	More meeting chairpeople leads to more meeting formality	?
CVA-03	Will you require that the Supplier perform a CM surveillance function internally with their own design teams for compliance with project CM rules?	Most organizations have an internal audit function to accomplish this	?
CVA-04	Will you require that the Supplier perform a CM surveillance function externally with their sub-tier suppliers for compliance with project CM rules?	Supplier CM Surveillance is an often forgotten CM specialty task	?
CVA-05	Will you perform a CM surveillance function and require that the Supplier complies with project CM rules?	Acquirer CM Surveillance is an often forgotten CM specialty task	?

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
			Environmental/Context Considerations		
ENV-01	?	1.0	ACMP 2100 Applies (to all contracts)	***All***	ACMP 2100 is the core set of contract clauses required by NATO
ENV-01	?	1.1	The Acquirer retains all responsibilities and authorities on configuration decisions that impact the **capability requirements** or definitions	***Low***	Would only be used in contracting for a capability
ENV-02	?	1.2	The Acquirer retains all responsibilities and authorities on configuration decisions that impact the **functional** requirements or definitions, and any changes to them	***Low***	Generally applies to performance based contracts
ENV-02	?	1.3	The Acquirer retains all responsibilities and authorities on configuration decisions that impact the form, fit and function of the product	***Medium***	Applies to build-to-print or mission critical products which require tight Acquirer control
ENV-03	?	D.01	Configuration control shall begin with the creation of the functional baseline and continues as the allocated and product baselines are established and documented using the Functional, Allocated, and Physical Configuration Documents (FCDs, ACDs, PCDs). Configuration control shall continue throughout the lifecycle of the product.	***High***	Identifies the three often used nominal baselines
ENV-02	?	11.3	The Acquirer shall: (1) Provide the name, organization and security clearance of each participating individual to the contractor prior to each audit; (2) Review the minutes and ensure that the minutes reflect all significant Acquirer inputs; and (3) Provide formal acknowledgement to the Supplier of the accomplishment of each audit after receipt of the audit minutes. The Acquirer establishes the adequacy of the contractor's audit performance by notification of: (a) Approval – to indicate that the audit was satisfactorily completed; (b) Contingent Approval – to indicate that the audit is not considered accomplished because some action items still remain outstanding (costs incurred for the resolution of all outstanding action items are the Supplier's responsibility), or (c) Disapproval – to indicate that the audit was seriously inadequate.	***High***	Clarification of the Acquirer's Configuration Audit roles and responsibilities, especially in terms of disposition of Audit results
ENV-04	?	8.9	The Supplier shall provide the following testing information for the FCA: a. Test plans, specifications, descriptions, procedures and reports for the CI; b. A complete list of accomplished functional tests (successful or not); c. A complete list of functional tests required by the specification but not yet performed; and d. Detailed test results.	***High***	Detailed requirements for test procedures and results as input to audits.
ENV-04	?	9.1	The Supplier shall present data confirming the inspection and test of sub-Supplier equipment end items at point of manufacture. Such data shall have been witnessed by the Acquirer or the designated representative.	***High***	Detailed requirements for test results, including from sub-suppliers, as input to audits.
ENV-05	?	1.5	The Acquirer reserves the right conduct surveillance of the Supplier's CM process	***Medium***	Used for verification of the Supplier's CM process to assure effectiveness.
ENV-06	?	D.02	The Acquirer shall implement a configuration control programme which provide effective means for a. proposing engineering changes to CIs b. requesting deviations or waivers pertaining to such items c. preparing notices of revision d. preparing specification change notices	***Medium***	Clarification of the Acquirer's responsibility for establishing the government process for configuration change control.
			Life Cycle Planning Considerations		
LCMP-01	?	1.4	The Acquirer delegates responsibilities and authorities to the Supplier on configuration decisions that DO NOT impact the capabilities and functions to be realized	***Medium***	Clarification for capability or performance based contracts
LCMP-02	?	1.4	The Acquirer delegates responsibilities and authorities to the Supplier on configuration decisions that DO NOT impact the form, fit and function of the product (See Clause on Class II Changes)	***Medium***	Clarification for contracts where the government wants to disposition only significant changes
LCMP-02	?	D.03	The Acquirer must identify an appropriate change approval authority that can approve any change and commit resources for implementation. The Acquirer must make a determination and application of adequate resources (including CM software tools) and facilities for implementation of CM functions;	***Medium***	Clarification regarding the Acquirer's responsibility to identify resources and authorities to manage the contract

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
LCMP-02	?	3.1	The Supplier shall identify the means by which continuity of effort and understanding is achieved between his sub-suppliers and himself, and between the Acquirer and himself and internally within his organization, for the allocated CI, integrating, interfacing or otherwise related CI, Supplier organizations, test and evaluation activities, and managers;	***Medium***	Flows down CM requirements to the sub-suppliers
LCMP-03	?	D.04	The Acquirer shall ensure that mandatory (legally required) CM details are defined, managed and associated information needs are traceable and collected	***Low***	Clarifies the Acquirer's obligation to give guidance to the Supplier regarding pertinent legal considerations
LCMP-04	?	2.8	The Acquirer is the final dispositioning authority on Interface Requirements which must be controlled by the Government	***Low***	Specifies government control of external interfaces
LCMP-05	?	2.3	The Acquirer will disposition the selection of CI's	***Medium***	Used to assure product structure and CI selection support government CM objectives
LCMP-05	?	2.5	The Acquirer is the final dispositioning authority on contractually required baselines	***Medium***	Used to assure baselines are established and verified to the government's satisfaction.
			Contractual Planning Considerations		
CMP-01	?	2.1	The Acquirer reserves the right to disapprove the Supplier's CM Plan when it fails to meet requirements	***Low***	Contingency clause to remedy a failing CM process
CMP-01	?	7.2	The Supplier, at the commencement of the project, shall propose a CSA system for the project that satisfies the Acquirer and meets all contractual requirements. CSA information and reporting systems shall be suitable to address the needs of all life cycle stages appropriate to the contract and as such be tailored if necessary. At the commencement of each project stage, the CSA shall be reviewed against the needs of that phase. CSA shall be ready to accept data and provide the required information not later than the milestones specified in the contract	***Medium***	General requirement for Status Accounting and the timing for informing the Acquirer
CMP-01	?	2.2	The Acquirer, when submission is required, will disposition the Supplier's Configuration Management Plan	***High***	Used when the Acquirer needs detailed awareness and control of the Supplier's CM Plan
CMP-01	?	4.1	The CMP shall be delivered to the Acquirer for approval, no later than thirty (30) days, after contract award. Depending on contract duration, updating of the CMP may be necessary. Procedures and the schedule for such updating shall be provided by the Supplier or included in the CMP itself. The CMP, when approved, shall serve as a working document to plan, guide, and measure the CM process. CM shall be implemented in accordance with the approved CMP.	***High***	Requirement for timing and continuous maintenance of the deliverable CMP.
CMP-01	?	4.3	The format of the CMP shall conform to the outline and format specified in REFERENCE. Optionally, sections listed may be further subdivided.	***High***	Controls the content and format of the CMP (requires further reference in the contract, such as the Annex to
CMP-02	?	4.2	The information described in the following paragraphs shall be included in the CMP: Organization. This section of the CMP shall outline the relationship and integration of the Supplier's project management and CM organizations and describe the organizational relationship of the individuals and activities involved in the CM program. The responsibilities of each individual or group shall be defined as well as the policy directives that govern the contractors CM program. Configuration Identification and Documentation. This section shall describe the methods to be used for identifying (e.g., naming, marking, numbering) documents and physical items (CI) Methods to achieve configuration traceability from requirements to equipment, components, computer software, facility sites and spares shall also be described. Requirements for the preparation, submission and subsequent release of Acquirer approved documentation which defines each of the required baselines shall also be described in this section. The Supplier's methods under which the documentation will be prepared and released internally shall also be described.	***Medium***	Controls the content and format of the CMP
CMP-03	?	4.4	The supplier shall establish procedures to define how each CM function will be accomplished.	***Medium***	Requirement for Supplier to adapt his CM processes to this contract
CMP-04	?	4.5	CM personnel shall have specific documented definitions of their assigned duties. (V10-10 ID 72)	***High***	Document the CM competence of personnel

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CMP-05	?	3.1	The Supplier shall identify the means by which continuity of effort and understanding is achieved between his sub-suppliers and himself, and between the Acquirer and himself and internally within his organization, for the allocated CI, integrating, interfacing or otherwise related CI, Supplier organizations, test and evaluation activities, and managers;	***Medium***	To assure flow down to sub suppliers
CMP-06	?	4.6	The Supplier shall effect process improvements during Engineering and manufacturing Development and System demonstrations REFERENCE	***High***	Best used in long term contracts where the CM process evolves with the maturity of the product design. (requires further reference in the contract)
CMP-07	?	6.29	The Supplier shall establish a Software Development Library (SDL) and implement procedures for controlling the software residing within the SDL.	***Low***	Infrastructure requirement, specific to product which involves software
CMP-07	?	5.2	Supporting data to be submitted with each proposal of potential CI(s) shall include but not be limited to the following: a. Project name; b. CI/Joint CI affected; c. Documentation; d. Identification number and title; e. Reasons for proposal; f. Consequences of approval or disapproval; g. Interface with other systems; h. Alternatives; i. Originator's name and address; j. Change authority; and k. Date of submittal.	***High***	Detailed data requirement when the government expects to approve the selection of CIs
CMP-07	?	6.22	Concurrent with the preparation of an ECP, the Supplier shall prepare an NOR for each drawing, associated list, specifications and other non-specification type documents (comprising the configuration identification for an item) which would require revision if the ECP were approved. NOR shall be attached to their related ECP	***Medium***	Detailed change control requirement, to be used when the change records generated by a Supplier need to fit into the Acquirer's through-life audit trail.
CMP-07	?	6.23	**Engineering Release System.** The Supplier shall establish and maintain an Engineering Release System and shall use the system to issue configuration documentation and to authorize the use of configuration documentation associated with an approved configuration. The Supplier shall maintain current and historical Engineering Release information for all configuration documentation of all configuration items and their component parts.	***Medium***	Detailed change control requirement, to be used when the change records generated by a Supplier need to fit into the Acquirer's through-life audit trail.
CMP-07	?	6.24	**Engineering Release Record (ERR**). The Supplier shall utilize an "Engineering Release Record" to release new or revised configuration documentation to the Acquirer for approval. The Acquirer approved configuration documentation will be used for all Supplier and Acquirer activities. The Supplier shall also ensure that information about the newly released and approved configuration documentation is incorporated into the Configuration Status Accounting Information system.	***Medium***	Detailed change control requirement, to be used when the change records generated by a Supplier need to fit into the Acquirer's through-life audit trail.
CMP-07	?	6.25	**Maintenance of Associated Documentation**. The Supplier shall establish a library to store Test Data, Test Procedures and Test Plans and implement procedures for controlling the library.	***Medium***	Infrastructure requirement for the capture of CM related information.
			Configuration Identification Considerations		
CID-01	?	5.4	The Supplier shall serialise like items, or groups (lots) of like items. The Serial / Lot Numbers shall be unique, consecutive, and non-duplicating for all items with a specific nomenclature. The original Serial Number of a unit/item/CI shall not be changed even when a change affecting interchange ability may require rework and reidentification. Once assigned, Serial Numbers shall not be reused for the same item/CI.	***Medium***	Product identification requirement that should be used when the government's logistic needs call for inventory/asset controls to the lot or unit level

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CID-01	?	5.1	The Supplier shall recommend a structured list of potential CI(s) to the Acquirer, using the selection criteria specified below. The final selection of CI shall be made by the Acquirer. Criteria for selection of CI shall include, but not be limited to: a. Safety of personnel and/or equipment; b. Criticality, complexity, and state-of-the-art, high cost items; c. Critical performance or operational effectiveness; d. Functionality and performance; e. Interface with other systems, government or sub-contractor furnished items, NATO standard items and support equipment; f. Integrated logistic support; g. Applications that effect a delivered product; h. Reliability and maintainability; i. Organization, management and responsibility considerations; j. Second sourcing; and k. Susceptibility to change.	***Medium***	Detailed data requirement when the government expects to approve the selection of Cis . NOTE: Bear in mind that what to choose as a CI is depending on your need for governance and insight. In order to get the Supplier to provide the most optimum suggestion on CI's, the Aquirer must provide the neccessary additional selection criterias according to the program specific needs. Hence, the list provided in CID-01 should initially be looked at as no more than a list for choosing candidates for CI's.
CID-01	?	5.5	All CI shall be marked in accordance with REF. Marking requirements and methods of application shall be entered in the configuration documentation related to the CI. If the product is too small to be marked, the configuration documentation shall specify the alternative means of identification.	***High***	Document identification requirement that should be used when the government's logistic needs call for inventory/asset controls that link to configuration
CID-01	?	5.6	The Supplier shall assign nomenclature in accordance with guidelines provided by the Acquirer REF.	***Medium***	Used when naming of product, assemblies or parts has to be consistent with government nomenclatures
CID-01	?	5.9	For each Computer Software Configuration Item (CSCI), the Supplier shall identify its Computer Software Components (CSC) and Computer Software Units (CSU).	***Low***	For contracts that involve software, this requirement sets the requirements for selections and approval of software configuration items
CID-01	?	5.22	The Supplier shall establish a Start of Contract Baseline (SCB) that reflects the configuration information at the start of the contract, and make it available to the Acquirer 30 days after contract award. In addition, the Supplier shall establish an End of Contract Baseline (ECB) that reflects the configuration information at the end of the contract, and make it available to the Acquirer 30 days before contract conclusion.	***Medium***	Ensures that the Supplier has baselined the configuration both at the beginning of work and at the end, and enable review with the Acquirer to adequacy.
CID-02	?	5.7	Non-Developmental Items identified as CI, when modified to satisfy project requirements, shall be re-identified as a project modified CI, and documented and controlled in accordance with the requirements of the contract.	***Medium***	To be used when commercial or existing product is being modified and adapted to this contract
CID-03	?	5.3	The Supplier's identification numbering system shall be used to assign a unique identifier to each CI and its associated documentation. Configuration Identification shall identify the documents that establish each baseline. The identification process will continue as long as the system is	***Medium***	When product identification is necessary, but does not have to be according to government style
CID-04	?	5.23	The Supplier shall propose for Acquirer approval, as a part of the configuration identification process, the Product Structure, the CI's, the required baselines, the interfaces, and the associated identification/numbering schemes	***High***	To be used in conjunction with other CI selection requirements which call for government approval
CID-05	?	5.10	The Supplier shall establish the Functional Baseline (FBL) for each CI.	***Low***	Select according to the life-cycle stages covered during the contract period
CID-05	?	5.12	The Supplier shall establish the Allocated Baseline (ABL) for each CI	***Low***	Select according to the life-cycle stages covered during the contract period
CID-05	?	5.14	The Supplier shall establish the Product Baseline (PBL) for each CI	***Low***	Select according to the life-cycle stages covered during the contract period
CID-05	?	5.20	The Supplier shall control and maintain the approved configuration documentation for each baseline.	***Medium***	Minor clarification to the ISO 10007 requirement to control configuration information by each baseline

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CID-05	?	5.8	For each CI, the Supplier shall develop and maintain configuration identification documentation. The Supplier shall document the functional and physical characteristics of all selected CI. The Supplier shall recommend to the Acquirer, the types of Configuration Documentation that shall be used to establish each CI. a. The Supplier shall obtain a NATO Commercial and Government Entity (NCAGE) Code. b. The Supplier shall also obtain the NATO Stock Number (NSN) for items designated for NATO re-procurement.	***Medium***	Document identification requirement that should be used when the government's logistic needs call for inventory/asset controls that link to configuration documentation
CID-05	?	6.27	Prior to the Product Baseline (PBL), the Supplier shall be responsible for defining and controlling all compatibility and interoperability among the various hardware and software components for which he has the design activity responsibility and between those components and the interfaces or components specified in the baseline configuration documentation.	***Medium***	Requirement for configuration consistency, even when the government does not explicitly approve each element
CID-05	?	5.11	The functional configuration documentation for a system shall be in the form of a system specification(s) or a prime item development specification(s) for a single item plus other applicable documentation. The functional configuration documentation shall also identify the documentation for selected items that are to be integrated or interfaced with the CI such as items separately developed or currently in the inventory. Functional configuration documentation shall include but are not limited to: a. All necessary functional characteristics; b. Test requirements; c. The necessary interface characteristics with associated items; d. Key lower level CI, if any; and e. Design constraints.	***Medium***	Detailed requirement for the functional definition, if a Functional Baseline is explicitly to be required in the contract
CID-05	?	5.13	The ABL shall meet the functional requirements allocated in the FBL. The development configuration documentation shall be in the form of development specification(s), referenced interface control documents, and other applicable documentation. Development configuration documentation shall include but are not limited to: a. The functional characteristics that are allocated based on the functional baseline; b. The tests required to demonstrate achievement of those functional characteristics; c. The necessary interface characteristics with associated CI; and d. Design constraints.	***Medium***	Detailed requirement for the allocation of functional characteristics along the lines of system elements, if an Allocated Baseline is explicitly to be required in the contract
CID-05	?	5.15	The product configuration documentation shall be in the form of product, material, and process specifications, engineering drawings and other technical documentation for the CI that satisfactorily reflects the requirements of ABL and FBL. Product configuration documentation shall include but not be limited to: a. All necessary physical and functional characteristics of CI; b. Selected functional characteristics designated for production acceptance testing; c. Production acceptance test; and d. PCA and FCA documentation.	***Medium***	Detailed requirement of the definition of the physical characteristics, if a Product Baseline is explicitly to be required in the contract.
CID-05	?	5.16	The Supplier shall identify each baseline by: (1) The baseline item CI number; (2) Baseline type; and (3) System designation.	***Medium***	Requirement for baseline traceability
CID-05	?	5.17	The Supplier shall provide, for each baseline, a list of documents, identified by title, and including the following: (1) Identification number and the NSCM NCAGE; (2) Revision status; (3) Type; (4) Use in other related systems; and (5) Approval date.	***High***	Requirement for baseline traceability

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CID-05	?	5.18	The Supplier shall prepare the documentation required for each baseline in accordance with the standards and/or other requirements specified in the contract REFERENCE.	***High***	Requires a reference for detailed guidance to the Supplier (requires further reference in the contract)
CID-05	?	5.19	The Supplier shall ensure that the configuration documentation defining the Configuration Baselines required in this contract, are mutually consistent and mutually compatible. NOTE: Each succeeding level of configuration documentation from the FBL to the ABL to the PBL shall be traceable to, and be a detailed extension of, its predecessor(s).	***Low***	Requirement for consistency across the three often used baselines NOTE: If you choose other/additonal baseline types, this requirements needs to be updated accordingly
CID-05	?	5.21	The Supplier shall submit the complete configuration documentation for each baseline.	***Medium***	When required as part of the Acquirer's approval process
CID-06	?	6.26	**Interface Requirements**. The interface requirements for a system and its configuration items shall be identified as part of the system engineering process. Those Interface Requirements, which must be controlled by the Acquirer during the development of a system, shall be incorporated into the Functional Baseline (FBL) and or Allocated Baseline (ABL) as applicable. Such interface requirements defined in baseline specifications shall be subject to the configuration control requirements of this REFERENCE	***Medium***	Used when the SOI has external interfaces controlled by the government (requires further reference in the contract)
CID-06	?	6.28	The Supplier shall provide a representative to the Interface Control Working Group (ICWG) who is responsible for all interface actions and agreements.	***Low***	Used when the government establishes an ICWG and Supplier participation is required
CID-06	?	8.13	The Supplier shall review the interface requirements and the testing of these requirements for CI.	***Medium***	Used when the government establishes an ICWG and Supplier participation is required
			Change Control Considerations		
CCM-01	?	2.9	**Classification of ECP**-The Supplier shall submit Class I ECP for approval and Class II changes for either concurrence in classification, or approval, to the Acquirer. The Supplier shall submit ECP to the Acquirer in accordance with the requirements of the contract (e.g. number of copies, data medium, etc.).	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-01	?	6.1	**Engineering Change Proposals (ECP)** The Supplier shall prepare and process an ECP for engineering, design, development changes, and shall classify and submit to the PM. Review and disposition the approved engineering changes in the CI and in its configuration documentation, update status accounting records, distribute change documentation, and verify change implementation. a. NOTE: Similar steps apply to RFD and RFW while only some steps apply to preliminary ECP (see ACMP –3: Paragraph 5.1.3).	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-01	?	1.6	**Configuration Control Board (CCB)** All proposed changes (e.g. ECP, RFD, RFW) shall be submitted and authorised by the Supplier's CCB prior to submission to the Acquirer. The Supplier's CCB shall be defined in the Supplier's Configuration Management Plan (CMP).	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-01	?	2.4	The Acquirer is the final dispositioning authority on configuration/engineering changes	***Medium***	Clarifies to the Supplier if the government intends to be the Configuration Authority, and will exercise control over all form, fit and function attributes
CCM-01	?	6.8	**Processing Times for Class I ECP**. Target Processing Times for ECP shall be agreed to between the Supplier and the Acquirer	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-01	?	6.10	**Numbering of ECP** The Supplier shall establish an ECP numbering system as shown in REFERENCE	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer. (requires further reference in the contract)
CCM-01	?	6.11	**Basic Engineering Change** Whenever a change to a CI is required, the Supplier shall develop the entire change and assign an ECP number to the ECP. This ECP shall encompass the highest level of assembly impacted by the change.	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CCM-01	?	6.18	**Use of Preliminary ECP.** The Supplier shall prepare and submit a Preliminary ECP, for the following purposes: a. to furnish the PM with available information in order to permit; (1) a preliminary evaluation of the merits of the proposed change; or (2) a determination regarding the desirability of continuing expenditures required to further develop the proposal. b. to provide alternative proposals; or c. when it is impracticable to submit a formal ECP within 30 calendar days.	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-01	?	6.19	**Approved Preliminary ECP**. The Supplier shall prepare and submit a formal ECP for each preliminary ECP approved by the Acquirer.	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-02	?	6.2	An ECP shall be a Class I if: a. The Functional Baseline (FBL) or Allocated Baseline (ABL), once established, is affected to the extent that any of the requirements are not within specified limits or specified tolerances; b. The Product Baseline (PBL), once established, is affected or the change impacts one or more of the following: (1) Government Furnished Equipment (GFE); (2) Safety (to include safety critical software); (3) Security; (4) Deliverable computer software; (5) Compatibility or interoperability with interfacing items; (6) Delivered operational and maintenance manuals; (7) interchangeability or replaceability; or (8) skills, manning, training, biomedical factors or human engineering design; and c. any of the contractual factors are affected, such as costs, guarantees, warranties, deliveries or scheduled contractual milestones.	***Medium***	Defines the distinction between magnitudes of change. Only required if the Class II decisions will be delegated to the Supplier
CCM-02	?	6.4	The Supplier shall assign one of the following priorities to each Class I ECP. The Supplier's proposed priority will stand unless the Acquirer has a valid reason for changing the priority. a. Emergency Priority. An Emergency Priority shall be assigned to an Engineering Change Proposal (ECP) for either of the following reasons: (1) to effect a change in operational characteristics which, if not accomplished without delay, may seriously compromise security; or (2) to correct a hazardous condition which may result in fatal or serious injury to personnel or in extensive damage or destruction of equipment. b. Urgent Priority. An Urgent Priority shall be assigned to an ECP for any of the following reasons: (1) to effect a change which, if not accomplished expeditiously, may seriously compromise the mission effectiveness of deployed equipment or forces; or (2) to correct a potentially hazardous condition; the uncorrected existence of which could result in injury to personnel or damage to equipment; or (3) to meet significant contractual requirements (e.g., when lead time will necessitate slipping approved production, or deployment schedules if the change was not incorporated); or (4) to effect an interface change which, if delayed, would cause a schedule slippage or increase cost; or (5) to effect life cycle cost savings to the nations involved. c. Routine Priority. A Routine Priority shall be assigned to an ECP when emergency or urgent is not applicable.	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-02	?	6.9	**FORMS:** The Supplier shall use Acquirer approved forms for ECP, RFD/RFW and NOR shown in REF	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CCM-03	?	6.3	Class II ECP address all changes not classified as Class I.	***Medium***	Defines the distinction between magnitudes of change. Only required if the Class II decisions will be delegated to the Supplier
CCM-03	?	6.12	**Parts Substitutions** Substitution of a non-repairable part identified by the Acquirer as an authorized substitute or superseding part shall not require a Class I Engineering Change or a Request for Deviation or Waiver, unless otherwise specified in the contract. a. Substitution of a non-repairable part for an item for which the Supplier has configuration documentation custody shall not require a Class I or Class II engineering change or a request for deviation/waiver when: (1) The part is identified as an authorized substitute or superseding part in a military specification or standard; and (2) The part will not be installed in equipment to be submitted for verification and reliability demonstration tests. b. For an item for which the Supplier has configuration documentation custody, a Class II Engineering Change shall be required when the part substitute is determined to be a preferred part over the original. c. A Class II Engineering Change will be required for all items for which the contractor does not have configuration documentation custody. d. Parts substitutions which do not meet the requirements stated in REF and for which a permanent change is not desired, shall require submission of a Request for Deviation or Waiver. e. All parts substitutions shall be recorded in an Interchange ability and Substitute Items list	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-04	?	6.17	**Related Engineering Changes** Whenever a basic Engineering Change to one CI requires related Engineering Changes to other CI, the Supplier shall describe the relationship between the basic ECP and any related ECP.	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-05	?	2.7	The Acquirer is the final dispositioning authority on parts substitution and variances	***Medium***	Clarifies Acquirer's authority, used in conjuction with Parts Substitution clause
CCM-05	?	6.20	If the Supplier determines, prior to manufacture of an item, that it is impossible to satisfy the mandatory requirements of the specification or drawings, the Supplier shall have a procedure for preparing and submitting an RFD to the Acquirer.	***Low***	Requirements governing concessions (waivers and deviations), if the Acquirer will consider them
CCM-05	?	6.21	If the Supplier determines, either during or after manufacture of an item, that the item does not meet specified requirements, but nevertheless believes that the item is suitable for use "as is" or after rework by an approved method, the contractor shall have a procedure for preparing and submitting an RFW to the Acquirer.	***Low***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-04	?	6.13	**Data For ECP, RFD, and RFW**, the Supplier shall submit data that is required to justify and describe the change and to determine its total impact. This data must be provided in a format agreed to in the contract or otherwise by the government.	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-05	?	6.14	**Classified Data** Classified data, essential to the evaluation and disposition of an ECP, shall be submitted separately in accordance with the approved NATO security procedures REFERENCE	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer. (requires further reference in the contract)
CCM-05	?	6.15	**Revisions of ECP** An ECP shall be revised when major alterations or changes to the initial ECP are necessary in order to describe the proposed change, and the Acquirer concurs with the additional engineering effort involved. Unless otherwise directed by the Acquirer, the revised ECP shall supersede the original ECP or latest revision and all existing amendments. The date of the ECP shall be the submission date of the revision.	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-05	?	6.16	**Amendments to ECP** Amendments to an ECP shall explicitly state the change to the previous document	***High***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-07	?	6.5	**Authorization of Class I ECP**. Prior to implementing the change, the Supplier shall seek Acquirer approval of Class I ECP	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CCM-08	?	6.6	**Authorization of Class II ECP**. the Supplier shall submit the Class II ECP to the Acquirer, for concurrence in the classification only, prior to or concurrent with, the release of the Class II change into contract production.	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
CCM-08	?	6.7	**Authorization of Class II ECP**. Prior to implementing the change, the Supplier shall seek Acquirer approval of Class II ECP	***Medium***	Specific Change Control process and documentation format requirements, to be used when configuration information needs to be transferred to the Acquirer.
			Status Accounting Considerations		
CSA-01	?	7.1	The Supplier shall be responsible to acquire, deliver and provide access to the configuration information necessary to support the life-cycle phases of the programme that are subject to the contract	***Low***	General requirement asserting the rights of access by the government to configuration information
CSA-01	?	7.9	In order to continue CSA during the in-service phase, the Supplier shall transfer the CSA database to the Acquirer or parties indicated by the Acquirer. The means and format of transfer of this data shall be as described in REFERENCE	***Low***	Clause requiring transfer of information to the government on a specified format, for the purposes of a through life CSA (requires further reference in the contract)
CSA-01	?	7.7	The CSA database shall also include the identification of all proprietary or restricted data and the CI to which each agreement applies	***Medium***	Requirement for identification of legally protected information
CSA-01	?	7.11	The Supplier's CSA system shall be capable of, but not be limited to, providing the following reports: a. An historical list of (sub-) contracts which will include information on the contact number, contractor's name and NSCM NCAGE and contract purpose; b. A list of configuration documents for a CI; c. A list of serial numbers for a CI (if applicable); d. A list of all hardware parts, assemblies and sub-assemblies including the manufacturer's part number and the NATO Stock Number (if applicable) that comprise a CI. It shall be printed in a hierarchical, or indented, manner so that the "level of assembly" relationships (e.g. where used, next assembly) of the various pieces of the CI can be understood by looking at the arrangement of the list; e. A list of all ECP, deviations and waivers against a CI; f. An historical list of all changes including information on the change status and implementation status (e.g. progress); g. A list of all outstanding, programmed or planned audits; h. A list of all outstanding actions, corrective and otherwise, as a result of an audit against a CI; i. A list of CI which have been subject to an audit with the date of the audit, the result of the audit and the status of the audit; and j. A breakdown list of the top level CI and all lower level CI.	***High***	Detailes CSA content requirement, used in particular when CSA data will have to be transferred to the government
CSA-02	?	7.3	**Data Elements**.The Supplier shall utilize data elements to be able to: a. Identify the current, approved configuration documentation, and identifier associated with changes; b. Record and report the status of proposed engineering changes from initiation to release; c. Record and report the results of configuration audits, including the status of identified discrepancies and action items; d. Record ad report the status of deviations; e. Provide traceability of design and reconciliation of product configurations; f. Track configuration identifiers including serial or lot numbers; g. Record and report test data, test results and test procedures; and h. Prepare CSA records and reports, unless otherwise specified in the contract. If a need arises for data elements not included therein, the contractor shall identify the data element to the Acquirer along with a proposed definition.	***Medium***	Detailes CSA content requirement, used in particular when CSA data will have to be transferred to the government
CSA-02	?	7.5	The Configuration Data Management System shall include the specified Data Information Packets (DIP) (REFERENCE)	***High***	Detailes CSA content requirement, used in particular when CSA data will have to be transferred to the government (requires further reference in the contract)

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CSA-02	?	7.12	Each report shall be marked such that it will identify the nature of the report and the time and date of the report. In general, the reports shall be sufficient for the Acquirer to establish, but not be limited to, the following: a. To control the status of the project in regard to the status of CI; b. To control the status of a CI and all the changes involved; and c. Reports shall be made available as specified (REFERENCE)	***High***	Detailes CSA content requirement, used in particular when CSA data will have to be transferred to the government (requires further reference in the contract)
CSA-03	?	7.4	The Supplier shall identify a focal point for the CSA system to interface with the Acquirer concerning potential or actual problems or deficiencies detected as a result of reviewing the output.	***Medium***	Requirement for enabling communication of CSA information
CSA-03	?	7.6	The Supplier shall allow the Acquirer or his designates to access the CSA system. The communication method, periodicity and means for access to be used shall be as Specified in the contract (REFERENCE).	***Low***	Requirement for enabling communication of CSA information (requires further reference in the contract)
CSA-04	?	7.8	The Supplier shall retain a complete CSA historical record. Such historical information shall be formatted and maintained in such a manner that it can be readily copied, in total or in specific elements as identified by the Acquirer (REFERENCE).	***Medium***	Minor clarification to the ISO 10007 requirement to note a required ability to transfer information to the Acquirer (requires further reference in the contract)
CSA-04	?	11.5	The Supplier shall record the accomplishment of the audit(s) in the Supplier's CSA system	***Medium***	Minor clarification to the ISO 10007 requirement to track audits in the CSA
CSA-05	?	7.10	The Supplier shall provide, to the satisfaction of the Acquirer, explanations and training on the interpretation of each CSA data output.	***Medium***	Requirement for enabling communication of CSA information
			Verification and Audit Considerations		
CVA-02	?	2.6	The Acquirer is the final dispositioning authority on contractually required audits	***Medium***	Used when the Acquirer needs to have full control of audit outcomes
CVA-03	?	10.4	The Supplier shall prepare for each audit consistent with the scope and magnitude of the audit. The contractor shall be responsible for establishing the time, place and agenda for each audit in accordance with the master milestone schedule, subject to coordination with the Acquirer. This shall be accomplished sufficiently in advance of each audit to allow adequate preparation for the meeting by the contractor, any subcontractors, and the Acquirer or designated representative.	***Medium***	General requirement for the preparation for audits
CVA-03	?	10.3	The Supplier shall be responsible for providing facilities for conducting audits. Accordingly, the contractor shall be required to provide the necessary resources and material to perform the audits	***Medium***	Used if the Acquirer's own staff participate, but the bulk of the audit work is to be done by the Supplier
CVA-03	?	9.5	The Supplier shall review all records of baseline configuration for the CI by direct comparison with the appropriate engineering release system and change control procedures to establish that the configuration being produced does accurately reflect released engineering data. This includes interim releases of spares provisioned prior to PCA to ensure delivery of currently configured spares	***Medium***	Used if the Acquirer's own staff participate in the FCA, but the bulk of the audit work is to be done by the Supplier. Requirement to ensure that all the technical preparations for the audit are performed
CVA-01	?	11.1	After completion of the audit(s), the Supplier shall publish and distribute copies of audit minutes. The Acquirer will officially acknowledge completion of the audit as indicated in REFERENCE	***Low***	Used if the Acquirer's own staff participate, but the bulk of the audit work is to be done by the Supplier (requires further reference in the contract)
CVA-02	?	11.2	The Supplier shall prepare and submit to the Acquirer for approval, audit report (s) complete with evidence of the closure of outstanding action items, in a format agreed to by the Acquirer.	***Medium***	Used if the Acquirer's own staff participate, but the bulk of the audit work is to be done by the Supplier
CVA-02	?	11.4	The Acquirer shall acknowledge partial completion of audits(s) for those configuration items whose final approval is contingent upon completion of integrated systems testing.	***High***	Allowance for an incremental audit approach for large/complex systems of interest
CVA-04	?	10.2	The Supplier shall be responsible for ensuring that subcontractors, vendors, and suppliers participate in audits, as appropriate. The contractor shall make possible the attendance of representatives from the Multinational Joint Projects	***Low***	Flow down to sub-suppliers Requirement to ensure that all involved parties are invited to he audit.
CVA-01	?	8.1	The Supplier shall be responsible for conducting the Functional Configuration Audits (FCA)	***Low***	Select when applicable to the contract effort and the life cycle stage

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CVA-01	?	8.2	The Supplier shall conduct the FCA on the CI, which is representative of the configuration to be released for production. When a prototype or pre-production article is not produced, the contractor shall conduct the FCA on the first production article. FCA may be conducted on a progressive basis. For cases where CI qualification can only be determined through integrated system testing, FCA for such CI will not be considered complete until integrated testing is complete.	***Medium***	Detailed requirements on the conduct of a PCA
CVA-01	?	8.3	The Supplier shall also conduct the FCA for a complex Configuration Item (CI) on a progressive basis throughout the CI development, when so specified by the PM. Such an FCA shall culminate at the completion of testing of the CI with a review of all discrepancies at the final system level FCA.	***High***	Allowance for an incremental FCA approach for large/complex systems of interest
CVA-01	?	8.4	The Supplier shall develop a checklist that identifies documentation, hardware and computer software to be available and tasks to be accomplished at the FCA for the CI.	***Medium***	Detailed requirements on the conduct of a PCA
CVA-01	?	9.1	The Supplier shall be responsible for conducting the Physical Configuration Audits (PCA)	***Low***	Select when applicable to the contract effort and the life cycle stage
CVA-01	?	9.3	The Supplier's conduct of the PCA shall include a detailed audit of; engineering drawings, specifications, technical data and tests utilized in production of hardware CI (HWCI) and a detailed audit of design documentation, listings, and manuals for CSCI. The PCA shall also include an audit of the released engineering documentation and quality control records to make sure the as-built or as-coded configuration is reflected by this documentation. For computer software, the Software Product Specification and Version Description Document shall be subject to the PCA.	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-01	?	9.4	The Supplier shall not perform the PCA unless all data pertinent to the CI audit is available for the audit. The Supplier shall compile and make this information available to all PCA participants two weeks in advance of the scheduled audit date. Required information shall include: a. Configuration Item Product Specification; the current Acquirer approved issue of the hardware development specification, software requirements specification and the interface requirements specification(s) to include Acquirer approved specification change notices, deviations and waivers; b. A list delineating both approved and outstanding changes against the CI; Identification of all changes actually made during test; Identification of all required changes not yet completed; c. Complete Shortage list; d. Acceptance Test Procedures and associated Test Data; e. Engineering drawing index including revision letters; All Supplier approved drawings and documents by the top drawing number as identified in the product specification of the CI. All drawings shall be of the category and form specified in the contract; f. Operating, maintenance, and illustrated parts breakdown manuals; g. Material Inspection and Receiving Report; h. Approved Nomenclature and nameplates; i. Software Manuals (programmers, operators, users) as well as software diagnostic and firmware support manuals; j. Software Version Description Document; k. FCA minutes for the CI(s) being audited; and b. Quality Assurance Data l. Manufacturing instruction sheets for hardware CI identified by the Acquirer.	***High***	Detailed/specific requirments fo the conduct of audits
CVA-01	?	9.2	The Supplier shall conduct the PCA for a new production item on the first article of its kind of the production line. For those items that are a re-procurement of a CI already in the inventory, the Supplier shall conduct the PCA on an item identified and selected jointly by the Acquirer and the Supplier.	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-01	?	8.5	The Supplier shall review all updates to previously delivered documents to ensure accuracy and consistency throughout the documentation set.	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-01	?	8.6	The Supplier shall document the physical configuration of the CI for which the test data are verified.	***Medium***	Detailed/specific requirments fo the conduct of audits

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CVA-01	?	8.9	The Supplier shall provide the following testing information for the FCA: a. Test plans, specifications, descriptions, procedures and reports for the CI; b. A complete list of accomplished functional tests (successful or not); c. A complete list of functional tests required by the specification but not yet performed; and d. Detailed test results.	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-03	?	10.6	The Supplier shall review the test procedures and results for compliance with specification requirements. Discrepancies shall be recorded in the audit minutes.	***Medium***	Clauses related to the use of test results in verification and audit
CVA-01	?	8.7	The Supplier shall ensure that all test reports; procedures and data used for the FCA shall be made a matter of record of the FCA minutes	***Medium***	Clauses related to the use of test results in verification and audit
CVA-01	?	8.10	The Supplier shall ensure that the testing accomplished with the approved test procedures and the validated test data (witnessed) shall be sufficient to ensure CI performance and quality assurance provisions/qualification requirements are satisfied as set forth in the specification.	***Medium***	Clauses related to the use of test results in verification and audit
CVA-01	?	8.12	The Supplier shall perform retests or additional tests to assure compliance with testing information for the FCA.	***Medium***	Clauses related to the use of test results in verification and audit
CVA-01	?	9.11	The Supplier shall present data confirming the inspection and test of sub-Supplier equipment end items at point of manufacture. Such data shall have been witnessed by the Acquirer or the designated representative.	***Medium***	Clauses related to the use of test results in verification and audit
CVA-01	?	8.8	The Supplier shall ensure that test data essential to manufacturing are included on, or furnished with, the CI documentation.	***Medium***	Clauses related to the use of test results in verification and audit
CVA-01	?	8.11	For those performance parameters, which cannot be completely verified during testing, the Supplier shall ensure complete verification by analysis or simulations. The results of the Supplier analysis or simulations shall be sufficient to ensure CI performance as outlined in the specification.	***High***	Clauses related to the use of test results in verification and audit
CVA-01	?	8.15	For Computer Software Configuration Items (CSCI), in addition to the previous requirements, the Supplier shall review database characteristics, storage allocation data and timing, and sequencing characteristics for compliance with specified requirements.	***Low***	Additional requirement specific for software related audits
CVA-01	?	9.8	The Supplier shall review a representative number of drawings and associated manufacturing instruction sheets for each item of hardware, identified by the Acquirer, and shall determine their accuracy and ensure that they include the authorized changes reflected in the engineering drawings and the hardware. Unless otherwise directed by the Acquirer, inspection of drawings and associated manufacturing instruction sheets may be accomplished on a valid sampling basis.	***High***	Clause enabling verification using a sample of the total configuration information.
CVA-01	?	9.9	The following minimum information shall be recorded for each drawing reviewed: a. Drawing number/title (include revision letter); b. Date of drawing approval; c. List of manufacturing instruction sheets (numbers with change letter/titles and date of approval) associated with this drawing; d. Discrepancies/comments; and e. The results of selecting a sample of part numbers reflected on the drawing, checking to ensure compatibility with the Parts Selection List, and examining the CI to ensure that the proper parts are actually installed.	***Medium***	Detailed/specific requirments fo the conduct of audits

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CVA-01	?	9.10	As a minimum, the Supplier shall accomplish the following inspections for each drawing and associated manufacturing instruction sheets: a. Drawing number identified on manufacturing instruction sheet shall match latest released drawing; b. List of materials on manufacturing instruction sheets shall match materials identified on the drawing; c. All special instructions called on the drawing shall be on the manufacturing instruction sheets; d. All dimensions, tolerances, finishes, etc, called out on the drawing shall be identified on the manufacturing instruction sheets; e. All special processes called out on the drawing shall be identified on the manufacturing instruction sheets; f. Nomenclature descriptions, part numbers and serial number markings called out on the drawing shall be identified on the manufacturing instruction sheets; g. All drawings and associated manufacturing instruction sheets shall be reviewed to ascertain that all approved changes have been incorporated into the configuration item; h. The release record shall be checked to ensure all drawings reviewed are identified; i. The number of any drawings containing more than five outstanding changes attached to the drawing shall be recorded; and j. The drawings of a major assembly of the hardware configuration item shall be checked for continuity from top drawing down to piece-part drawing	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-01	?	9.12	For CSCI, in addition to previous requirements, the Supplier shall perform the following actions for each CSCI being audited: a. Review all documents which will comprise the Software Product Specification for accuracy and completeness; b. Review the design descriptions for proper entries, symbols, labels, tags, references and data descriptions; c. Compare top-level software design descriptions with lower-level software design descriptions for consistency; d. Compare all lower-level software design descriptions with all software listings for accuracy and completeness; and e. Review the annotated listings for compliance with approved coding standards	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-01	?	10.1	The Supplier shall perform the audit(s) as scheduled in the CMP. A CI shall not be audited without prior Acquirer approval of the Functional and Allocated (development) Baselines. A current set of listings shall be provided for each CSCI being audited. The Supplier shall submit a minimum of two weeks prior to the audit(s), the final draft of the Product Specification for audit of the CI, to the Acquirer for review	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-02	?	10.5	The Supplier shall provide the following information on CI(s) to the Acquirer prior to audit(s): a. Supplier Team Composition. The test manager should be one of the Supplier personnel in attendance; b. Identification of CI to be audited: c. Nomenclature; d. Specification Identification Number; e. Configuration Item Numbers; f. Serial Numbers; g. Drawing and Part Numbers; h. NATO Commercial and Government Entity (NCAGE); i. Software inventory numbering system; and j. Current listing of all ECP, deviations and waivers against the CI, either requested of, or approved by the PM. k. Status of test programs to test CI with automatic test equipment (when applicable).	***Medium***	Detailed/specific requirments fo the conduct of audits
CVA-03	?	8.14	The Supplier shall examine the Preliminary and Critical Design Review minutes to ensure that all findings have been incorporated and completed.	***Medium***	Used if other parts of the contract required or made available PDR/CDR information

Question	Answer	#	NATO Clauses to Include in the Contract (Build Up)	CM Intensity	Comment
CVA-02	?	9.13	The Supplier shall recommend acceptance of CI, which have demonstrated compliance with the product specification and shall certify by signature that the configuration item has been built in accordance with the drawings and specifications	***Medium***	Requirements for analysis, recording and dispositioning of audit outcomes
CVA-02	?	8.16	The Supplier shall analyze and provide a written report to the Acquirer on CI that fail to pass test provisions/qualification requirements as to the cause of failure to pass. Appropriate corrections shall be made before a CI is subjected to a re-qualification.	***High***	Requirements for analysis, recording and dispositioning of audit outcomes
CVA-03	?	9.6	The Supplier shall identify any difference between the physical configurations of the unit selected for the PCA and the unit used for the FCA and shall certify or demonstrate to the Acquirer that any difference does not degrade the functional characteristics of the selected units.	***Medium***	Requirements for analysis, recording and dispositioning of audit outcomes
CVA-03	?	9.7	The Supplier shall ensure that differences between the actual configuration of the CI being audited and the configuration described in the CI configuration documentation shall be a matter of record in the minutes of the PCA.	***Low***	Requirements for analysis, recording and dispositioning of audit outcomes
CVA-05	?	12.	The Supplier shall plan Configuration process audits to assure an efficiently tailored CM system is implemented and that the configuration baselines have been set at the appropriate time in the contract. The Supplier shall perform the configuration management process audits, in accordance with approved CMP, and the guidelines of ISO 19011:2002, Guidelines for quality and/or environmental management system auditing or using the principles of SAE/EIA-649B . The Supplier shall capture configuration process audit planning, results, and action closures as part of the CM activities and information and make this available to the Acquirer. The Acquirer reserves the right to conduct his own process audits of the Supplier, if the approved CMP is not matched by process execution results and presents added risk to the contract.	***Heavy***	Clause to address the effectiness and efficiency of the Supplier's CM process

Question	Answer	EIA-649-1 Paragraphs to Tailor-Out	CM Intensity	Comment(s)
Environmental/Context Considerations				
ENV-01	?	**-NA-**	***Low***	If answer is "No", then use commercial CM req'ts/practices
ENV-02	?	**Section 3.0 (1) - (4)**	***High***	If Supplier is design authority, then following Supplier's CM process as it complies with the Acquirer's CM requirements. If Acquirer is the design authority, then this is a "build-to-spec/print" job, and Acquirer carries the majority of the burden for the CM process.
ENV-03	?	**Section 3.1 (1) - (5)**	***Low-to-High depending on how much of lifecycle applies***	This requirement defines how much of the military product lifecycle the project will cover. If no Development, then remove CM req'ts related to Development; if no Production, then remove CM req'ts related to Production; etc.
ENV-04	?	**Section 3.2.2.2.2 (1)(h)**	***Low***	No Supplier support means Acquirer supports via Military Depot or similar.
ENV-05	?	**Section 3.1 (3)**	***Low***	Delete CM activity associated with Initial Baseline Review (IBR), where CM req'ts are reconciled with available CM budget/resources to ensure feasibility.
ENV-06	?	**-NA-**	***Could be Low or High***	No CM req't paragraph to remove. This question identifies that all parties understand how Contract type can affect CM performance (i.e., do not accept a contract for new, state-of-the-art technical development under a fixed price arrangement -- as you will experience too many unfunded changes to make the technology work and the contract will not be profitable).
Life Cycle Planning Considerations				
LCMP-01	?	**Section 3.1 (1)**	***High***	If Acquirer has not written their life cycle CM Plan, the CM scope for the Supplier will not be clearly known and potential for CM scope creep will be large. Supplier had better plan for High Intensity CM in order not to lose profit.
LCMP-02	?	**Section 3.1 (1) and (3)**	***High***	If the Acquirer has not thought through the resources & authorities to be used on the project, Supplier had better plan for High Intensity CM.
LCMP-03	?	**Section 3.1 (1)**	***Could be Low or High***	If no special outside or no special CM required, then there is a better than 50/50 chance that CM intensity will be Low.
LCMP-04	?	**Section 3.1 (1), Section 3.1.2 (1)**	***Low***	If no internal or external interfaces, then there is a better than 50/50 chance that CM intensity will be Low.
LCMP-05	?	**Section 3.1 (1)**	***Could be Low or High***	Relates to CM applicable to CM transition planning
Contractual Planning Considerations				
CMP-01	?	**Section 3.1 (1) - (2)**	***Low***	If no Supplier CM plan is required, this must be an very simple, build-to-print contract or COTS purchase; or the Acquirer plans to "inspect-in" CM discipline in Supplier via many audits/surveillance activities performed on Supplier. Nearly all CM design authority held by Acquirer.
CMP-02	?	**Section 3.1 (1)**	***Could be Low or High***	Means Acquirer has no idea what a reasonable Supplier CM headcount is, and CM personnel scope is unbounded. This is related to ENV-05.
CMP-03	?	**Section 3.1 (1) - (4)**	***Low***	Scenario where Supplier has "no" or "very limited" CM procedures is likely a very simple built-to-print or COTS procurement.
CMP-04	?	**Section 3.1 (5)**	***Low***	Scenario where Supplier CM personnel need "no" or "very limited" CM training is likely a very simple built-to-print or COTS procurement.
CMP-05	?	**Section 3.1.2 (1)**	***Low***	Must mean Supplier has no subcontractors nor sub-tier suppliers.
CMP-06	?	**Section 3.1.1 and 3.1.3 (1)**	***Low***	Means the purchase is very simple, build-to-print or COTS arrangement.

Question	Answer	EIA-649-1 Paragraphs to Tailor-Out	CM Intensity	Comment(s)
CMP-07	?	**Section 3.1.4 (1) and 3.4**	***Low***	Means the purchase is very simple, build-to-print or COTS arrangement. Ensure there are no Contract Data Requirements (CDRLs) in contract.
Configuration Identification Considerations				
CID-01	?	**Section 3.2 (3), (4), (5), (7)**	***Low***	Means the configuration identity of products is being handled by Acquirer, not delegated to Supplier.
CID-02	?	**Section 3.2.1 (1) - (2)**	***Low***	Means Config Ident rules apply only to deliverable, with no sub-tier items being CI's.
CID-03	?	**Section 3.2.4 (1) - (4), Section 3.2.4.1 (1) - (4)**	***Low***	Means the item being purchased does not meet any of the IUID criteria. Must be low per/unit price and no mission or safety critical criteria involved. Not serially managed.
CID-04	?	**Section 3.2.2.3(1) and 3.2.3**	***Low***	Means the Acquirer maintains the BOM/parts list or the product is COTS and no parts list exists for Acquirer to purchase or maintain.
CID-05	?	**Section 3.2 Principles 11 & 12 and Section 3.2.2 all requirements including subsections**	***Low***	Means product has already achieved Product Baseline (PBL). Probably a reprocurement of an existing configuration. Use prior baseline doc's via reference.
CID-06	?	**Section 3.2.5 all requirements including subsections**	***Low***	Means there are no external interfaces for the Supplier to have to address or manage.
Change Control Considerations				
CCM-01	?	**Section 3.3 (1) - (3) and all subsection requirements related to Major (Class I)**	***Low***	Means Acquirer holds design authority and Supplier has no-to-very-limited change control authority. Typically, Minor (Class II) change authority, if any.
CCM-02	?	**Section 3.3.1.2 (1)**	***Could be Low or High***	Means Acquirer does not allow Supplier to submit Major (Class I) changes; or that Acquirer allows Supplier to use their own equivalent form to DD Form 1692.
CCM-03	?	**Section 3.3.1.8 and all subsection requirements related to Minor (Class II) change**	***Low***	Means Acquirer has not delegated Minor change authority to Supplier; or has some other Acquirer-oversight method for making make Minor (Class II) changes on the project. Be sure to check Supplier Material Review Board (MRB) authority to ensure the equivalent of Minor changes are not being back-doored through MRB.
CCM-04	?	**Section 3.3.1.1 (1)**	***Low***	Means Supplier is not an "integrator" of parts, likely with little authority to make changes.
CCM-05	?	**Section 3.3.2 and all subsection requirements related to Variances**	***Low***	Means Non-conformances are not acceptible on the project; or that Acquirer allows Supplier to use their own equivalent form to DD Form 1694.
CCM-06	?	**Section 3.3.1.2, 3.3.1.8.1 and 3.3.2.2**	***Low***	Means the Supplier is not authorized to make any changes or variances; or that the scope of the contract is very simple/COTS and the Supplier is allowed to use their own or Industry best-practices.
CCM-07	?	**Section 3.3 ~~#1 - #3~~**	***Could be Low or High***	Means that Section 3.3 needs to be tailored to match the Major (Class I) change authority arrangements decided for the project. May not involve any CM deletions.
CCM-08	?	**Section 3.3 ~~#1 - #3~~**	***Could be Low or High***	Means that Section 3.3 needs to be tailored to match the Minor (Class II) change authority arrangements decided for the project. May not involve any CM deletions.
Status Accounting Considerations				
CSA-01	?	**Section 3.4.1 (1) - (5)**	***Low***	Means the procurement must by minor or COTS. Otherwise, standard practice is to perform CSA reporting on at least the deliverable end item as a Configuration Item (CI).
CSA-02	?	**Section 3.4.1 (3)**	***Could be Low or High***	Means the Acquirer has not defined their CSA requirements; or that there are not CSA requirements for the deliverable.
CSA-03	?	**Section 3.4.1 (4)**	***Low***	Means batch processing and only periodic access is acceptable; or that CSA reporting is not required at all.
CSA-04	?	**Section 3.4.1 (4)**	***Low***	Means Acquirer is willing to accept Supplier's CSA database capability as-is; or that CSA reporting is not required at all.
CSA-05	?	**Section 3.4.2 #1**	***Could be Low or High***	Means the Acquirer has not defined their CSA metrics requirements; or that there are not CSA metrics required for the deliverable.
Verification and Audit Considerations				

Question	Answer	EIA-649-1 Paragraphs to Tailor-Out	CM Intensity	Comment(s)
CVA-01	?	**Section 3.5.1 (1) - (3)**	***Low***	Means the procurement must by minor or COTS. Otherwise, standard practice is to perform Configuration Audits on a minimum of the deliverable end item as a Configuration Item (CI).
CVA-02	?	**Section 3.5.1 (1) - (3) in general, and 3.5.1 (1)(g) in specific**	***Low***	Means the procurement must by minor or COTS and Acquirer Rep at configuration audit is not required; or that Acquirer has enough confidence in Supplier's configuration audit process to delegate to Supplier.
CVA-03	?	**Section 3.5.2 (1) - (6), Section 3.5.3 (1) - (6)**	***Low***	Means the procurement must by minor or COTS and Supplier CM Surviellance is not
CVA-04	?	**Section 3.5.2 (1) - (6), Section 3.5.3 (1) - (6)**	***Low***	Means the procurement must by minor or COTS and Supplier CM Surviellance is not appropriate; or that Acquirer and Supplier have enough confidence in Sub-tier Supplier such that Surveillance is not deemed necessary. This is a very rare scenario, in most cases Surveillance is a very worthwhile activity to perform every 3-5 years.
CVA-05	?	**Section 3.5.1**	***Low***	Means the procurement must by minor or COTS and Supplier CM Surviellance is not

Terms Used in This Document	Definition
ABL	Allocated Baseline
ACA	Associate Contractor Agreement
ACD	Allocated Configuration Document
ACMP	Allied Configuration Management Publication (NATO)
CCB	Configuration Control Board
CCM	Configuration Change Management
CDRL	Contract Data Requirements List
CI	Configuration Item
CID	Configuration Identification
CIEC	Configuration Information at End of Contract
CISC	Configuration Information at Start of Contract
CM	Configuration Management
CMP	Configuration Management Plan
COTS	Commercial off-the-shelf
CSA	Configuration Status Accounting
CSCI	Computer Software Configuration Item
CSI	Critical Safety Item
CSU	Configuration Software Units
CVA	Configuration Verification and Audit
DD	Department of Defense
DIP	Data Information Packet
ECP	Engineering Change Proposal
EIA 649-1	Configuration Management Requirements on Defense Contracts
ENV	Environment
ERR	Engineering Release Record
FBL	Functional Baseline
FCA	Functional Configuration Audit
FCD	Functional Configuration Document
GFE/GFP	Government Furnished Equipment/Property
HWCI	Hardware Configuration Item
IBR	Initial Baseline Review
ICD	Interface Control Document
INA	Information Need Analysis
ISO 10007	QMS Guidelines for configuration management
IUID	Item Unique Identification
LCMP	Life-cycle Configuration Management Plan
MRB	Material Review Board
NATO	North Atlantic Treaty Organization
NCAGE	NATO Commercial and Government Entity
NOR	Notice of Revision
NSCM	NATO Supply Code for Manufactures
NSN	NATO Stock Number
PBL	Product Baseline
PCA	Physical Configuration Audit
PCD	Product Configuration Document
PM	Program Manager
RFD	Request for Deviation
RFW	Request for Waiver
SDL	Software Development Library
SOI	System of Interest