



TECHNICAL REGULATION OF ARMY MATERIEL MANUAL (TRAMM)

TRAMM

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TECHNICAL REGULATION OF ARMY MATERIEL MANUAL (TRAMM)

The Technical Regulation of Army Materiel Manual (TRAMM) is applicable to the Australian Defence Organisation for ADF land materiel.

A handwritten signature in black ink, which appears to read 'Billett'.

B.L. BILLETT
Colonel
Army Technical Regulatory Authority

3 Aug 2004

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FOREWORD

1. This manual has been developed by the Directorate of Technical Regulation - Army to provide the detailed policy and guidance to achieve a high degree of confidence in the technical integrity of land materiel. This issue contains Version 3.0 of Volume 2, Section 4, Chapter 4 – *Inspection and Classification of Land Materiel*. This chapter has been rewritten in response to user feed back and to comply with current Land Warfare doctrine which may be found in LWD 4-2 – *Maintenance Support*.

2. A summary of the major changes will be published on the DTR-A website: <http://intranet.defence.gov.au/armyweb/sites/DTRA/>.

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LIST OF FORMS

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GM 156 - Engineering Change Proposal	Volume 3 Section 2 Chapter 1
Notice of Revision (NOR) Form	Volume 3 Section 2 Chapter 2
GM 119 – Advice of Change in Build State	Volume 3 Section 2 Chapter 3
Design Acceptance Certificate	Volume 3 Section 2 Chapter 7
Army TRF Design Acceptance Concession Form	Volume 3 Section 2 Chapter 7
Judgement of Significance Proforma	Volume 3 Section 2 Chapter 7

GLOSSARY

Accreditation. TRF accreditation is formal recognition by an authorised TRF accreditation authority that an organisation complies with TRF requirements.

Accreditation audit. (*see Audit*)

Accreditation Authority. A Technical Regulatory Framework accreditation authority is an individual granted authority by the Chief of Army, TRA or delegate to perform TRF accreditation. Accreditation authorities are as follows:

- a. **Engineering organisations.** The accreditation authority for all engineering organisations is the TRA.
- b. **Maintenance organisations.** The accreditation authorities for maintenance organisations are the TRA, Maintenance Approval Authorities (MAAs) or Maintenance Approval Authority Representatives (MAARs). MAAs and MAARs are authorised in their respective letters of appointment to accredit specific organisations.

Accredited Engineering Organisation (AEO). An organisation that has been assessed as compliant with the Army Technical Regulatory Framework and has been certified as an AEO by the Accreditation Authority.

Accredited Maintenance Organisation (AMO). An organisation that has been assessed as compliant with the Army Technical Regulatory Framework and has been certified as an AMO by the Accreditation Authority.

Allocated baseline. (*see Baseline*)

Approved design. An approved design is a technical design description; including both details of the designed materiel item and information on models, calculations, etc, which informed decisions during the design process.

Approved spare/repair part. An approved part is one that has been procured through the authorised supply system, using the NSN or manufacturer's part number provided in an approved RPS or CES, or a part authorised in an ILSI.

Audit. A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which policies, procedures and/or requirements used as a reference are fulfilled. (*AS/NZS ISO 9000:2000*)

Accreditation audit. A TRF accreditation audit is an external audit of an organisation for the purpose of accreditation against the Army TRF and comprises both a desktop audit and a compliance audit addressing all TRF requirements. The TRF accreditation audit is to result in a report that details audit findings and recommends whether the organisation should be accredited.

Compliance audit. A TRF compliance audit is an on-site audit that determines the extent to which all personnel within an organisation follow all elements of an authorised EMP or MMP.

Configuration audit. Examination to determine whether a configuration item conforms to its configuration documents. (*AS/NZS 3907:1996*)

Desktop audit. A TRF desktop audit is a documentation audit. The TRF desktop audit determines the extent to which the documented system, represented by the EMP or MMP and other associated documentation, meets all TRF requirements. The desktop audit may be conducted off-site.

External audits. External audits are audits conducted on a organisation's quality, engineering or maintenance management system by a 'second' or 'third' party. Second party audits are conducted by parties having an interest in the organisation, such as customers, or by other persons on their behalf. Third party audits are conducted by external independent organisations that provide accreditation or certification of conformity with requirements such as those of ISO 9001. *(AS/NZS ISO 9000:2000)*

Follow-up audit. A follow-up audit is an audit to verify that corrective actions relating to previously identified non-conformances have rectified the non-conformances. It may be limited to addressing only those elements of the EMS or MMS relating to the non-conformances.

Internal audits. Internal audits, sometimes called 'first-party audits', are conducted by, or on behalf of, the organisation itself for internal purposes and can form the basis for an organisation's self-declaration of conformity. *(AS/NZS ISO 9000:2000)*

Surveillance audit. A TRF surveillance audit is an external audit that assesses on-going compliance with the TRF. The TRF surveillance audit is to result in a report that details audit findings and recommends whether the organisation should continue to be accredited.

Baseline. Baseline is a configuration identification document or a set of such documents formally designated and fixed at a specific time during a Configuration Item's design development or life cycle. Baselines, plus approved changes from those baselines, constitute the current configuration identification. Typically there are three baselines, which are established sequentially, as follows:

Allocated Baseline (ABL). The current approved performance oriented documentation, for a Configuration Item to be developed, which describes the functional and interface characteristics that are allocated from those of the higher level Configuration Item, and the verification required to demonstrate the achievement of those specified characteristics. The ABL is sometimes referred to as the Development Baseline. *(MIL-HDBK-61A)*

Functional Baseline (FBL). The approved configuration documentation describing a system's or top-level configuration item's performance (functional, interoperability, and interface characteristics) and the verification required to demonstrate the achievement of those specified characteristics. *(MIL-HDBK-61A)*

Product Baseline (PBL). The PBL is the approved technical documentation that describes the configuration of a Configuration Item during the production, fielding/deployment and operational support phases of its life cycle. *(MIL-HDBK-61A)*

Build Standard. A Build Standard for an item of equipment is a listing of records at a defined issue status of all drawings and instructions necessary for the manufacture, overhaul and reconditioning of that equipment and where appropriate, for testing, packaging and installation.

Build State. Build State is the actual build of an item of equipment as produced. In Army, this is expanded as follows:

Actual Build State. The actual build of a **particular item of equipment** at the time of inspection ie the item's characteristics, including any modifications (approved or otherwise), components or sub-assemblies and their functionality.

Approved Build State. The **recorded** build state of a particular item of equipment ie the Build Standard plus deviations, waivers and approved local design changes.

Build State Declaration (BSD). A formal declaration of the Actual Build State of an item. BSD are usually required from the manufacturer prior to acceptance into the Defence supply system, and must be completed after implementation of local design changes.

Change Analysis Panel (CAP). A panel formed within large or complex projects to conduct the initial assessment of Engineering Change Proposals, and action those within their pre-determined scope.

Competence. Consistent application of a knowledge, skill and attitude to the standard of performance required in the workplace.

Competency. The specification of a knowledge and skills standard of performance required in the workplace. *DI(G) PERS 05-29 - Implementation of the National Training Framework within Defence vocational education and training.*

Computer software (or software). Computer programs and computer databases.

Computer software documentation. Technical data or information, including computer listings, regardless of media, which documents the requirements, design, or details of computer software; explains the capabilities and limitations of the software, or provides operating instructions for using or supporting computer software during the software's operational life cycle.

Concession. An Army TRF concession is a certificate allowing an organisation to be accredited as an AMO or AEO despite a known non-conformance with TRF requirements. It includes requirements for risk mitigation and rectification of the non-conformance.¹

Configuration audit. *(see Audit)*

Configuration control. Activities comprising the control of changes to a configuration item after formal establishment of its configuration documents. *(AS/NZS 3907:1996)*

Configuration Control Board (CCB). A CCB is a board composed of technical and administrative representatives who recommend approval or disapproval of proposed engineering changes to a configuration item's current approved configuration documentation. The board also recommends approval or disapproval of proposed deviations from a CI's current approved configuration documentation.

Configuration documents. Documents that define the requirements, design, build/production and verification for a configuration item. *(AS/NZS 3907:1996)*

Configuration identification. Activities comprising determination of the product structure, selection of configuration items, documenting the configuration item's physical and functional characteristics including interfaces and subsequent changes, and allocating identification characters or numbers to the configuration items and their documents. *(AS/NZS 3907:1996)*

Configuration Item (CI). (An) aggregation of hardware, (firmware), software, processed materials, services, or any of its discrete portions, that is designated for configuration management and treated as a single entity in the configuration management process. *(AS/NZS 3907:1996)*

Configuration Management (CM). Configuration management is a management discipline that applies technical and administrative direction to the development, production and support life cycle of a configuration item. *(AS/NZS 3907:1996)*

Configuration Management Concept (CMC). A description of the intended Configuration Management level and process, with an estimate of resources that will be required. The CMC is contained within the Integrated Logistic Support Concept *(see also CM Plan)*.

Configuration Management Instruction (CMI). An Annex to the ILSI which describes how CM is to be conducted during the transition, in-service and disposal phases of the capability's lifecycle *(see also CM Plan)*.

Configuration Management Plan (CMP). A document setting out the organisation and procedures for the configuration management of a specific product or project. *(AS/NZS 3907:1996)*

¹ This specific use of the term 'concession' is unique to the engineering and maintenance organisation accreditation process in the Army TRF. Specific rules for concessions are in Volume 2, Section 1, Chapter 1 - *TRF Audits and Accreditation*

Configuration Status Accounting (CSA). Formalised recording and reporting of the established configuration documents, the status of proposed changes and the status of the implementation of approved changes. *(AS/NZS 3907:1996)*

Contract Change Proposal (CCP). A CCP is the formal documentation which details the proposed contract change and the documentation by which the change is described, justified and submitted to Defence for approval.

Defective. An item is defective if it contains a fault in design or deviation of a dimension, finish or other characteristic from specification or drawing requirements or from recognised standards of good workmanship; where the fault is not attributable to fair wear and tear.

Delegated Technical Authority. Within the TRF, this term applies only to the appointment of authorised representatives of Design Acceptance Authorities (DAA) and Maintenance Approval Authorities (MAA) and empowers a competent individual to complete autonomous design acceptance and maintenance approval within defined materiel categories and organisational bounds.

Design (noun). Expression of ideas in drawn, written or physical terms. Design includes designs for development or production of articles manufactured in workshop, modifications, new components, prototypes, concept demonstrators, new equipment or new systems. The designs can be new designs or design changes (alterations of existing designs).

Design (verb). That creative activity that translates ideas into tangible reality. *(ADFP 101 Glossary)*

Design acceptance. Certification by the Design Acceptance Authority (DAA) or Representative (DAAR) that a land materiel design is fit-for-service, safe and environmentally compliant. It is the judgement made by the DAA/DAAR that a land materiel design is technically acceptable to the ADF, as a result of examination of the design process applied, the design product and design certification presented.

Design Acceptance Authority (DAA). An appointed competent engineer, who is responsible for:

- a. the design acceptance of land materiel, including modifications or changes;
- b. land materiel design-safety and environmental compliance; and
- c. assigning design and design acceptance responsibility to appropriate individuals.

Design Acceptance Authority Representative (DAAR). A competent individual delegated authority by the DAA to conduct specific design acceptance activities. The DAAR must be a member of the ADO. *(see also Local Design Acceptance Authority Representative).*

Design approval. The certification by an authorised individual within an organisation producing a design, that the design meets specified design requirements and is fit-for-purpose, safe and environmentally compliant.

Design Authority (DA). A person or organisation who has the responsibility for design, and the preparation, modification or interpretation for goods or services. The DA may be an ADO agency, or civilian organisation under contract to the ADO.

Design review. An examination of a design to ensure that assumptions and references used were valid, calculations were correct and sufficient, and the design meets specifications and satisfies technical integrity requirements.

Desktop audit. *(see Audit)*

Deviation. A deviation is a written authorisation to depart from an item's current approved configuration documentation, either for a limited number of CIs within a population, or the entire population of a CI for a limited time. For example, use of a different grade of steel in a repair due to

the unavailability of the correct grade. A deviation differs from an Engineering Change in that a deviation does not require revision of the CI's current approved documentation.

Document. A self-contained body of information or data that can be packaged for delivery on a single medium. Examples of documents include drawings, reports, standards, databases, application software and engineering designs.

Engineering. Engineering applies theory and practice to analyse and design technology-based physical systems. The engineering activities essential for achieving technical integrity of land materiel include:

Design. The basis for the design of materiel is to be an endorsed user requirement that is derived from operational concepts and doctrine. The endorsed user requirement is to be used in the initial assessment of technical integrity.

Maintenance engineering. Maintenance engineering applies engineering skills, techniques and knowledge to influence the design, development, selection and reliability of materiel, and provides for effective and economic through life maintenance. It supports design engineering by addressing reliability and provisions for effective through life logistic support ensuring that the technical integrity of materiel can be efficiently sustained.

Engineering Change Proposal (ECP). A proposed engineering change and the documentation by which the change is described, justified and submitted for approval.

Environmental compliance. Following Departmental Environment Instructions to minimise risks and maintain accountability in relation to environmental protection matters. This requires that land materiel be designed and maintained so that it poses no unacceptable risk to the environment.

Executive authority (function). The authority to authorise the design, procurement, acquisition, modification, maintenance, or use of land materiel.

Executive Authority (appointment). An individual holding executive authority. This is normally an individual with authority to approve expenditure of funds. Within the Services, executive authority is vested in the operational chain of command at all levels. In other ADO organisations, executive authority is vested in directors and managers at all levels.

External audit. (*see Audit*)

Firmware. Computer programs and data loaded in a class of memory that cannot be dynamically modified by the computer during processing. (*AS4043:1992*)

Fit. The ability of an item to physically interface or interconnect with or become an integral part of another item.

Fit-for-service. In the context of this manual, the materiel meets an endorsed operational requirement by virtue of its design and manufacture and is maintained to a fully functional state.

Follow-up audit. (*see Audit*)

Form. The shape, size, dimensions, mass, weight, and other visual parameters which uniquely characterise an item. For software, form denotes the language and media.)

Function. The action or actions which an item is designed to perform.

Functional Baseline (FBL). (*see Baseline*)

Functional characteristics. The quantitative performance parameters and constraints, including operational and logistic parameters and their respective tolerances. Functional characteristics include all performance parameters such as range, speed, lethality, reliability, maintainability and safety.

Hardware. Items made of material, such as weapons, aircraft, ships, tools, computers, vehicles and their components (mechanical, electrical, electronic, hydraulic, pneumatic). Computer software and technical documentation are excluded.

Hazard. A source or a situation with a potential for harm in terms of human injury or ill health, damage to property, damage to the environment, or a combination of these. A safety hazard focuses on potential harm to personnel.

Initial compliance audit. (*see Audit*)

Inspection. Inspection is a careful and critical scrutiny of materiel, conducted on a systematic and periodic basis, to ascertain the standards of maintenance, repairs and adjustments necessary, modification state, accuracy of equipment records and documents and that the materiel is functional and meets technical integrity requirements.

Non-technical inspections are conducted by authorised, qualified and competent operators.

Technical inspections are conducted by authorised, qualified and competent technical tradespersons.

Interface. Physical or functional interaction at the boundary between configuration items. (*AS/NZS 3907:1996*)

Interface control. The process of identifying, documenting, and controlling all functional and physical characteristics relevant to the interfacing of two or more items provided by one or more organisations.)

Internal audits. (*see Audit*)

Item. A non-specific term used to denote any product, including, for example, materials, parts, sub-assemblies, assemblies and accessories. (*ADFP 101*)

Land materiel. Materiel, including related spares, repair parts and support equipment, intended for use by the ADF in the land environment, and for which DTR-A is the nominated TRA.

Local Design Acceptance Authority Representative (Local DAAR). A competent individual delegated authority by the relevant DAA to conduct design acceptance activities for Articles-Manufactured-in-Workshop, Local Engineering Change Proposals and Local Manufacture of Technical Components. The DAAR must be a member of the ADO. (*see also DAAR*).

Maintenance. (*see Materiel maintenance*).

Maintenance Approval Authority (MAA). The MAA is an appointed competent engineer who is responsible for assigning maintenance authority to organisations, sites or individuals, and for **ensuring** these organisations maintain compliance with the Army TRF.

Maintenance Approval Authority Representative (MAAR). A competent individual delegated authority by the MAA to conduct specific maintenance authority activities. The MAAR must be a member of the ADO.

Maintenance Authority (MA). The authority formally provided by the MAA or delegate to a Maintenance Organisation to undertake specified maintenance activities.

Maintenance codes. Maintenance codes identify the level of maintenance support at which repairs or other action will take place, IAW current logistic management instructions. Maintenance codes are:

No Outstanding Maintenance (NOM). The materiel is complete with all components, has acceptable wear within defined limits, and requires no maintenance or modification. The materiel satisfies technical integrity requirements under all specified operating conditions. Note that NOM does not imply 'as new'.

Operator Maintenance (OM). The materiel requires maintenance by qualified operators. The maintenance tasks are non-technical in nature.

First Line Maintenance (X). Requiring maintenance by technical personnel integral to the organisation.

Second Line Maintenance (Y). Requiring maintenance by the organisation's supporting formation technical personnel.

Third Line Maintenance (Ymdm). Requiring maintenance by technical personnel at third line. The materiel is normally replaced from force stocks.

Fourth Line Maintenance (Z). Requiring maintenance by technical personnel outside the force, in the national support base. The materiel is normally replaced from depot stocks.

Beyond Repair (BR). The materiel is **not** capable of being restored within prescribed repair limits IAW current policy. The materiel would normally be salvaged and then disposed of.

Maintenance Engineering (ME). The application of engineering skills and techniques to influence the design, development, selection and logistic support arrangements of land materiel to maximise availability and to minimise the maintenance impact over its intended service life. Throughout the in-service life of equipment, ME aims to solve problems by addressing and eliminating defects and failures which threaten the operational performance of land materiel.

Maintenance Supply Item (MSI). A technical item of which the normal usage, except for the replacement of wastage, is met by the process of repair or overhaul of existing items. Maintenance supply items are either rotatable or repairable:

Rotable. Those MSI normally capable of being repaired or reworked an unlimited number of times.

Repairable. Those MSI capable of being repaired or reworked a limited number of times.

Master Document Index (MDI). The MDI is a list of the documentation supporting a particular item of materiel.

Materiel. All items (including ships, tanks, self-propelled weapons, aircraft, etc and related spares, repair parts and support equipment but excluding real property, installations and utilities) necessary to equip, operate, maintain and support military activities without distinction as to its application for administrative or combat purposes. (ADFP 101 *Glossary*).

Materiel acceptance. The certification by the procurement or project authority that the contractor has fulfilled the contractual obligations in respect of any item or items of the supplies listed on the Supplies Acceptance Certificate, and that those supplies conform with the requirements of the contract. The project authority signing the Supplies Acceptance Certificate signifies acceptance.

Materiel classification. Materiel classification is the process of categorising, recording and certifying for the purpose of identifying the state of technical integrity of land materiel and the required level of maintenance support, at the time of technical inspection. Certifying requires the name and signature of the individual classifying the materiel on dated inspection documentation, or authorised electronic equivalent.

Land materiel classification includes a useability code, a maintenance code, and estimated repair times (ERT).

Materiel maintenance. All action taken to retain materiel (equipment) in or to restore it to a specified condition, including inspection, testing, servicing, classification as to useability, repair, rebuilding and reclamation. There are two categories of materiel maintenance:

- a. **Operator maintenance.** Operator maintenance is maintenance that may be performed by authorised personnel who are appropriately trained and qualified but who need not be technical tradespersons. It includes routine and parade servicing, functional tests, non-technical inspections, authorised operator repair tasks, and operator tasks during scheduled services.
- b. **Technical maintenance.** Technical maintenance is maintenance that must be performed by authorised tradespersons. Technical maintenance includes technical inspections, testing, calibration and corrective maintenance actions.

Materiel occurrence log. A materiel occurrence log is to record all significant technical integrity occurrences affecting an organisation. In particular the following occurrences must be recorded in the log:

- a. all external TRF audits;
- b. all deviations from established technical and non-technical maintenance schedules and procedures;
- c. any technical advice given but not acted on; and
- d. all known occurrences that may compromise, or appear to compromise, the technical integrity of any land materiel.

Modification. Process of alteration conforming to an approved change in order to correct a deficiency, facilitate production or maintenance or to improve operational effectiveness. (*ADFP 101*)

Non Fair Wear. A fault or instance of damage that is considered by a proficient technical tradesperson to be caused by other than normal use of the materiel, in accordance with authorised procedures and current restrictions, is considered to be due to Non Fair Wear (NFW). Accident damage, misuse of materiel, failure of materiel to perform to specifications, or failure to conform to authorised maintenance procedures may all cause NFW.

Pattern. A sufficient description of the form, quality and functions of an item of supply in terms of drawings, specifications and/or physical specimens to permit identification or procurement to appropriate standards of uniformity and interchangeability. (*ADFP 101*)

Pattern certification. An administrative function, carried out to certify that a pattern conforms to the current authorised Build Standard.

Personal Protective Equipment (PPE). Clothing or equipment designed to protect personnel from exposure to hazards and preserve the health of the individual.

Physical characteristics. Physical characteristics are the quantitative and qualitative expressions of material features, such as composition, dimensions, finishes, fit, form and their respective tolerances.

Procurement Authority. The organisation, branch or department responsible for the process of obtaining materials, products and services for the Defence Department. A project manager or purchasing officer authorised to manage a contract or place an order for supply of goods or services. (see Executive Authority)

Product Baseline (PBL). (*see Baseline*)

Professional engineer. An individual who has successfully completed a four year degree course recognised by IEAust in an engineering discipline at a university, institute of technology or other tertiary institution, and has professional development sufficient to satisfy the entry requirements of IEAust as a Graduate Member.

Provisional Design Acceptance (PDA). Provisional Design Acceptance is granted by the DAA/DAAR to permit the use of land materiel under specified restrictions.

Quality Management System. A quality management system controls an organisation's technical, administrative and human factors affecting the quality of its products including hardware, software, processed materials or services.

Retrofit. The incorporation of new design parts resulting from an approved engineering change to an item's current approved product configuration.

Risk engineering. Risk engineering is the application of engineering principles, criteria and techniques, in light of a knowledge of user behaviour principles, to identify, eliminate or reduce hazards, in order to remove or reduce the associated risk to acceptable levels (ie. the application of engineering knowledge to risk management). (AS/NZS 4360:1999 - *Risk Management*)

Rotable items. (see *Maintenance Supply Items*).

Safe to operate. The materiel is designed and maintained so that it poses no unacceptable risk of unintended death, injury or occupational illness to personnel.

Safety. The control of recognised hazards to attain an acceptable level of risk. (*SAFETYMAN*)

Safety requirements. Requirements detailed in the relevant technical and safety standards (eg. Australian Standards, Worksafe Australia standards/codes of practice) or as per sound engineering practice.

Significance. The significance of a proposed design is a measure of the level of risk associated with the design, expressed as significant or non-significant. The significance of a design affects the authorisations which individuals of different technical competencies may exercise. Significance is initially judged during design development and reassessed at all reviews including design acceptance.

Software. (see *Computer software*).

Specification. A clear and accurate description of the technical requirements for a material, product or service, including the procedure by which it will be determined that the requirements have been met. (*ADFP 101 Glossary*)

Standards (engineering). Engineering standards establish engineering criteria for materiel, personnel, processes, procedures, practices and methods as exact values, physical entities or abstract concepts for the purpose of controlling variety. They represent acceptable solutions for recurring design and engineering processes. Standards are normally introduced into acquisition through specification.

Subsystem. Major functional part of a system; usually consisting of several components that are essential to the operational completeness of the system. (*ADFP 101 Glossary*)

Surveillance audit. (see *Audit*)

System. An integrated composite of people, products and processes that provide a capability to satisfy a stated need or objective. (*DI(AF) LOG 1-104 Systems Engineering*)

Technical advice. A formal or professional opinion given by a competent authorised individual, in accordance with the requirements of the TRF. Such advice includes:

- a. technical integrity considerations for a particular piece of equipment or materiel type;

- b. engineering standards for materiel;
- c. the allocation and correct usage of technical facilities;
- d. the effective utilisation of materiel;
- e. the recovery of materiel including any specialised equipment or procedures;
- f. the investigation and coordination of technical matters; and
- g. employment of technical resources (including personnel).

Technical certification. Technical Certification is the act of an authorised technically proficient individual certifying that land materiel, technical integrity management processes, technical personnel or organisations comply with a stated specification, standard or other requirement. In procurement activity, technical certification is the collection of certifications signifying satisfactory completion of all the requirements of a Technical Certification Plan (TCP). As a minimum, the TCP is to require Design Acceptance and Quality Assurance certifications against an endorsed user requirement.

Technical Data (TD). TD encompasses all recorded information of a scientific, technical and engineering nature. TD includes all specifications, standards, engineering drawings, operating, maintenance and overhaul instructions and manuals, test results, calibration reports, tabular data and software documentation required for support of land materiel throughout its life cycle. (DI(G) LOG 03-6 – *Defence Policy on Integrated Logistic Support*)

Technical Data Package (TDP). A TDP is a general description for a logical, organised collection of technical data necessary to support a defined requirement.

Technical integrity. An item's fitness-for-service, safety and compliance with regulations for environmental protection.

Technical regulation. The implementation of policy to ensure technical integrity by the issue of regulations covering engineering, supply and maintenance with the support of quality engineering and quality assurance.

Technical Regulatory Authority (TRA). The appointment authorised by the Chief of Army to make arrangements and issue regulations for the technical regulation and management of the technical integrity of land materiel and will normally be the Director Technical Regulation - Army.

Technical Support Network (TSN). A TSN is a collection of agencies and individuals, within and external to the ADO, that provides technical services in support of organisations with responsibilities for land materiel. These services supplement internal technical resources to enable the organisation to carry out its engineering or materiel maintenance responsibilities. The elements of a TSN are known as Technical Support Agencies (TSA).

Technical Tradesperson. A Technical Tradesperson within the Army TRF is an individual who is qualified to conduct technical maintenance, including technical inspection and classification, on designated land materiel as detailed by authorised equipment instructions. A technical tradesperson must be assessed as either a level one, two or three in Army's levels of technical proficiency.

Unsatisfactory. An unsatisfactory item may conform to its design specifications but fails to meet the user's requirement.

Useability codes. Useability codes detail the functional state of materiel and any restrictions on materiel use as follows:

Fully Functional (FF). The materiel meets technical integrity requirements for all specified operating conditions. It is safe to operate, is maintained and has acceptable wear within defined limits. It may have outstanding maintenance or modifications which do not affect safe operation. FF, when applied to materiel which is subject to periodic maintenance, is to be qualified by one or more expiry conditions (eg date, km travelled, hours run, Equivalent Full Charges (EFC) as specified in materiel specific instructions). The first occurring expiry condition applies.

Restricted Use (RU). The materiel is unable to perform the full range of specified tasks. It may have outstanding maintenance or modifications which do not affect specified safe operation. It must be capable of performing tasks within specified restrictions without unacceptable risk of personnel injury, equipment or environmental damage. Tasking restrictions **must** be stated. RU is to be qualified by one or more expiry conditions (eg date, km travelled, hours run, EFC as specified in materiel specific instructions). The first occurring expiry condition applies.

Do Not Use – XX (XX). Continued use of the materiel is not possible, or poses an unacceptable risk of personnel injury, equipment or environmental damage. Before further use, technical maintenance is required to restore the useability code of the materiel to FF or RU. Materiel coded XX is to be clearly marked as such, in a manner obvious to users.

Battleworthy (BY). During operations, materiel that would normally be coded RU or XX may be coded BY. BY differs from RU and XX in that a higher level of risk is accepted. BY is usually restricted to specific materiel types within an area of operations. Use of the BY useability code may only be authorised by the operational commander. BY materiel may have restrictions placed on its use. BY is qualified by one or more expiry conditions (eg date, km travelled, hours run, EFC as specified in materiel specific instructions). The first occurring expiry condition applies.

Validation. Validation is the formal process that confirms that an item complies with the customer's requirement.

ACRONYMS AND ABBREVIATIONS

ABL	Allocated Baseline
ADO	Australian Defence Organisation
AEO	Accredited Engineering Organisation
AMO	Accredited Maintenance Organisation
AMW	Article Manufactured in Workshop
ARN	Army Registered Number
BSD	Build State Declaration
CAP	Change Analysis Panel
CCB	Configuration Control Board
CES	Complete Equipment Schedule
CI	Configuration Item
CM	Configuration Management
CMC	Configuration Management Concept
CMGR	Configuration Manager
CMI	Configuration Management Instruction
CMP	Configuration Management Plan
CSA	Configuration Status Accounting
CCP	Contract Change Proposal
DA	Design Authority
DAA	Design Acceptance Authority
DAAR	Design Acceptance Authority Representative
EA	Executive Authority
ECP	Engineering Change Proposal
EFC	Equivalent Full Charge
EMP	Engineering Management Plan
FBL	Functional Baseline
ILSI	Integrated Logistic Support Instruction
Local DAAR	Local Design Acceptance Authority Representative
MA	Maintenance Authority

MAA	Maintenance Approval Authority
MAAR	Maintenance Approval Authority Representative
MDI	Master Document Index
ME	Maintenance Engineering
MEMA	Manual of Equipment Management and Accounting
MMP	Maintenance Management Plan
MSI	Maintenance Supply Item
NSN	NATO Stock Number
PBL	Product Baseline
PDA	Provisional Design Acceptance
PPE	Personal Protective Equipment
PMAP	Project Management and Acquisition Plan
RPS	Repair Parts Scale
SDSS	Standard Defence Supply System
SMM	Senior Maintenance Manager
TA	Technical Authority
TCP	Technical Certification Plan
TDP	Technical Data Package
TIS	Technical Integrity Supervisor
TRA	Technical Regulatory Authority
TRF	Technical Regulatory Framework
TRAMM	Technical Regulation of Army Materiel Manual
TSN	Technical Support Network