



*Presented to:*

# SRE RAM 6 Workshop

## *RAM in the US ARMY Materiel Release (MR) Process*

Approved for public release; distribution unlimited. Review completed by the AMRDEC Public Affairs Office 10 Oct 2013; PR0071.



***TECHNOLOGY DRIVEN. WARFIGHTER FOCUSED.***

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**Matériel Release is a formal certification  
that Army matériel is safe, suitable, and supportable  
*before*  
going to Full Rate Production (FRP) or issue to the Soldier.**

- **SAFE**
- **SUITABLE (MEETS OPERATIONAL PERFORMANCE REQUIREMENTS)**
- **SUPPORTABLE**



**AR 700-142**

**Revision of AR 700-142 issued 17 January 2013**

## What Does Materiel Release Apply to?

- **Nonexpendable materiel.**
- **High density military expendables.**
- **Materiel procured by the Defense Logistics Agency (DLA).**
- **Jointly developed materiel.**
- **Materiel procured by another military service or government agency.**
- **Software or block upgrades.**
- **Modifications and Upgrades**

## 1. FULL

- a) All applicable requirements have been met
- b) Allows FRP Decision Review on Developmental Programs

## 2. CONDITIONAL

- a) Occurs when all requirements have not been met
- b) Requires a Get Well Plan that addresses each condition with a plan for achieving FMR by identifying:
  - Proponent / Category
  - Reason for the condition
  - Interim Solution
  - Plan for correction
  - Funding Requirements
  - Get Well Target Date

## 3. URGENT

- a) Limited Certification that the materiel meets minimum safety requirements and is suitable based on a validated User requested or HQDA directed requirements memorandum to field the materiel rapidly to meet a capability short fall.

## 4. TRAINING

- a) Limited Certification that authorizes a PM to field materiel to TRADOC/GC schools and training sites for curriculum development and training of Soldiers

## 5. SOFTWARE

- a) Software Materiel Release – approved by MRA
- b) Software Release – approved by SED director

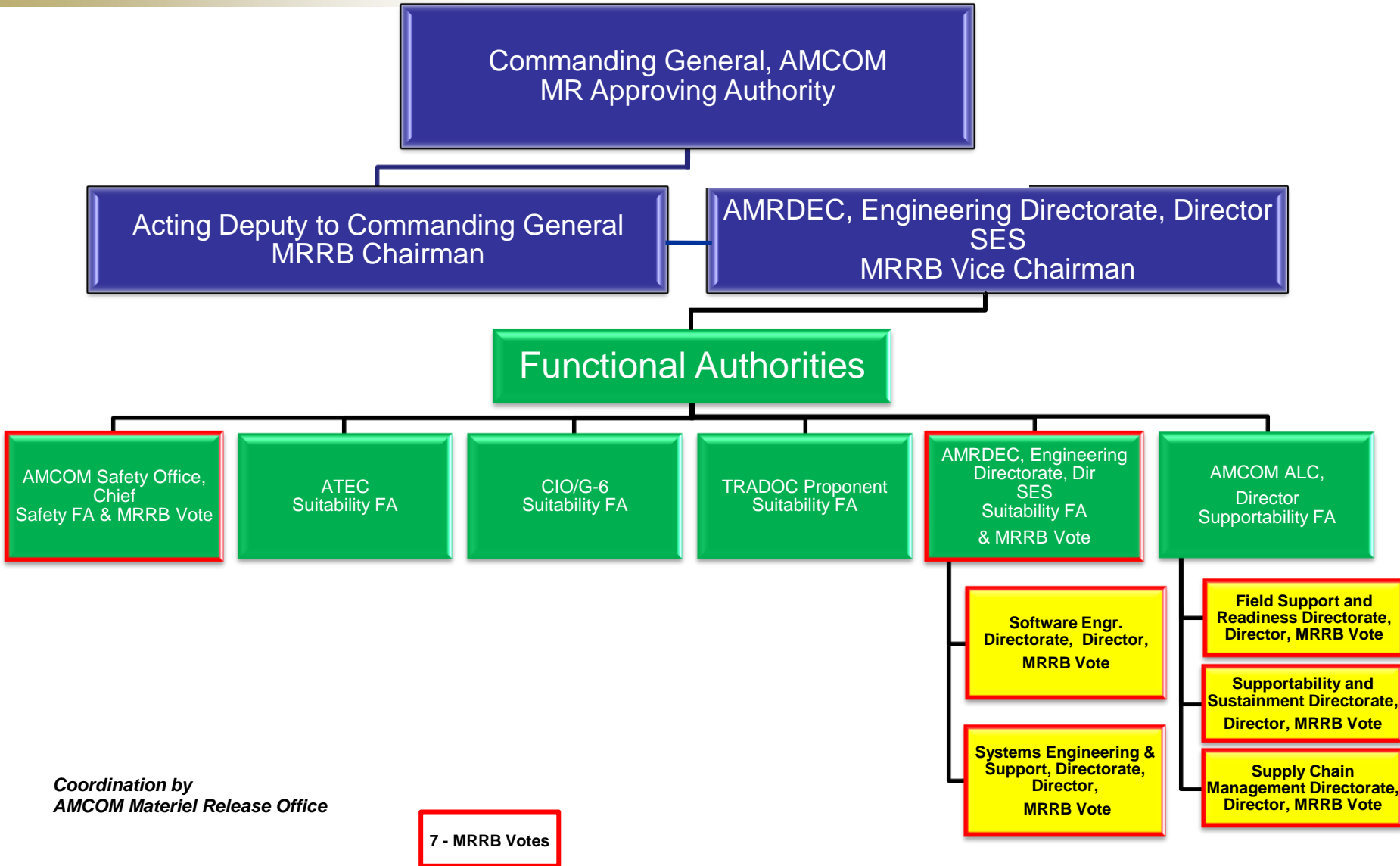
- A. LCMC Safety Functional Authority Statement
  - 1) MRRB Vote
- B. ATEC Functional Authority Statement (MR Position Memo)
- C. CIO/G-6 Army Interoperability Certification
- D. Net Worthiness Certificate
- E. DIACAP Certification
- F. COMSEC Accreditation
- G. TRADOC Training Assessment
- H. LCMC Engineering Functional Authority Statement
  - 1) Three AMRDEC MRRB Votes
- I. LCMC ILS Functional Authority Statement
  - 1) Three ALC (IMMC) MRRB Votes

### Additional Requirements if Conditional\*

- J. Get Well Plan for each condition
- K. User Request
- L. User Acceptance

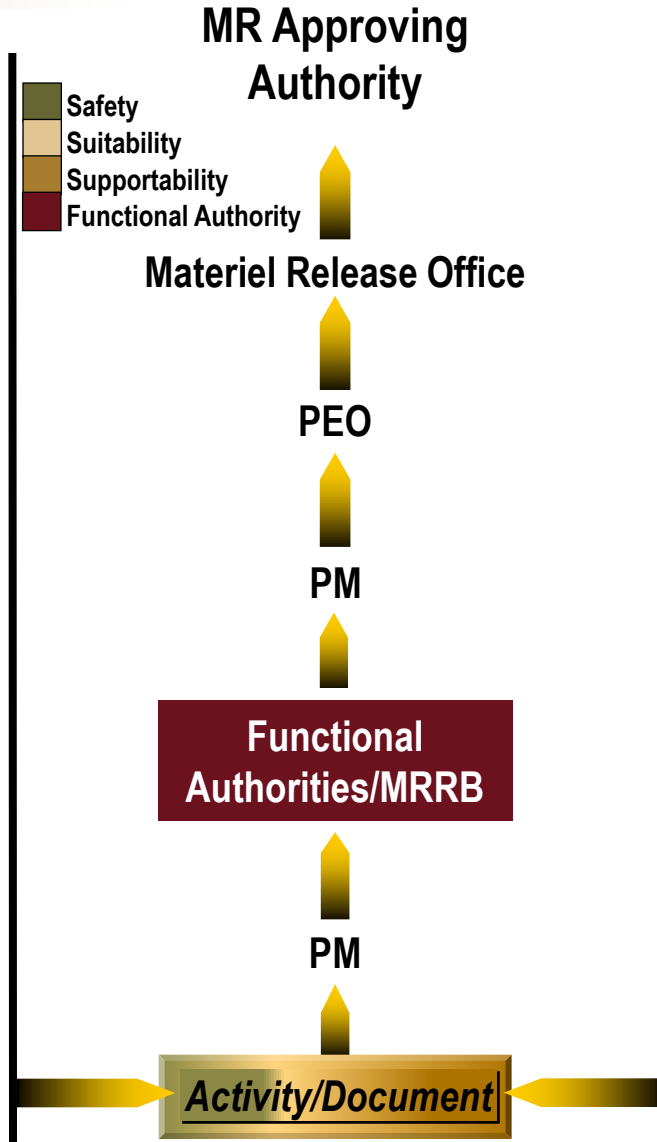
\*CMRs are restricted to specific quantity and location

# MR Approving Authority, AMCOM MRRB and Army Designated MR Functional Authorities



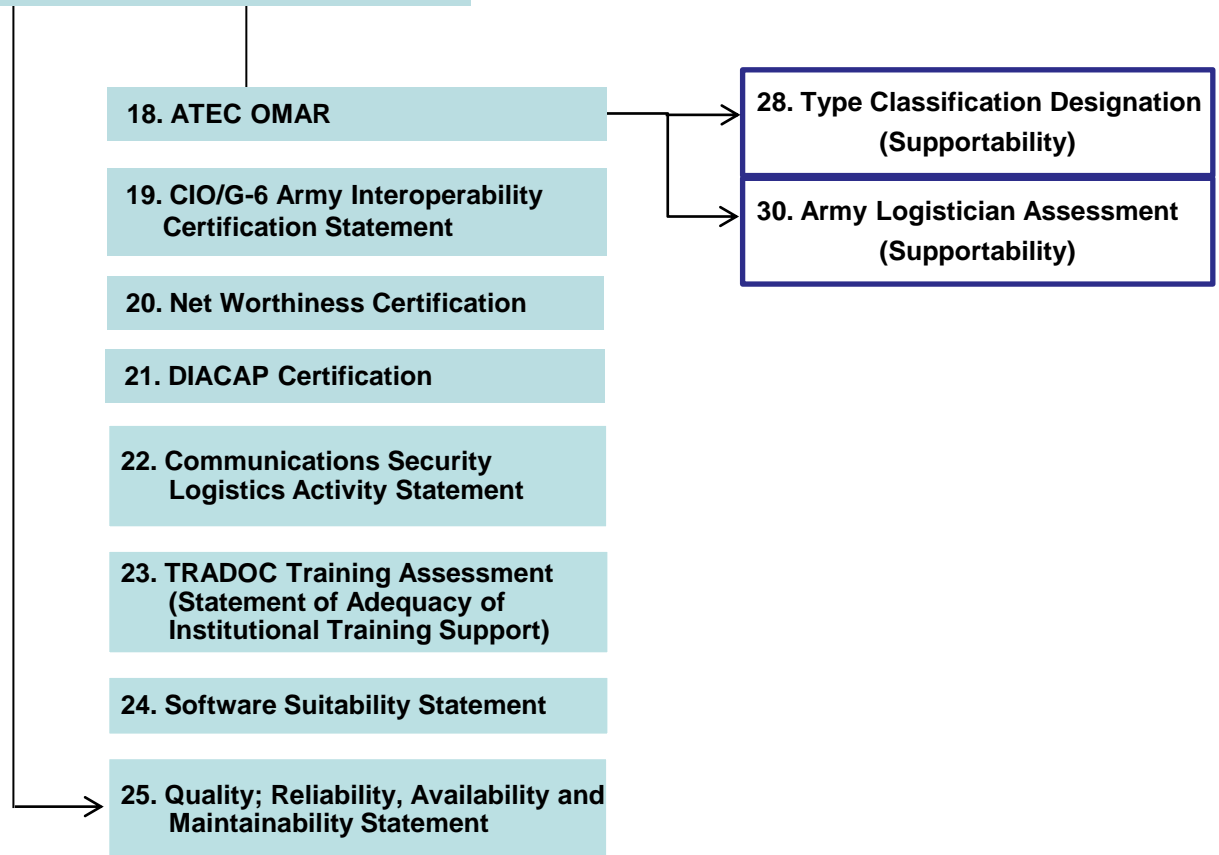
Coordination by  
AMCOM Materiel Release Office

- Safety Certification (Chief, AMCOM Safety) (A)**
- 1 - Safety Statement (AMCOM Safety)
- 2 - Summary of HHA (Public Health Command)
- 3 - EOD Statement (AMC)
- 4 - Environmental Statement (AMSAM-EN)
- 5 - Air Worthiness Statement
- 6 - System Safety Risk Assessment
- 7 - Safety Confirmation (DTC)
- 8 - Surface Danger Zone (AMCOM Safety)
- 9 - Final Hazard Classification
- 10 - NRC License
- 11 - Army Fuze SRB Certification
- 12 - Energetic Mats Qual Board Cert
- 13 - ISSRB Certification (Ignition Safety Review Board)
- 14 - Safety Review of TMs (AMCOM Safety)
- 15 - Safety Inspections/Analyses (AMCOM Safety)
- 16 - Software Safety Statement (AMCOM Safety)



- 17 - ATEC MR Position Memo (ATEC) (B)
- 18 - OMAR OR OER (ATEC) (B)
- 19 - Army Interoperability Certification (G6) (C)
- 20 - Net Worthiness Certificate (G6) (D)
- 21 - DIACAP Certification Statement (G6) (E)
- 22 - COMSEC Supportability Stmt (G6) (F)
- 23 - Training Adequacy (TRADOC) - G (G)
- Suitability Certification (AMRDEC) (H)**
- 24 - Software Suitability Statement (AMRDEC)
- 25 - Quality and RAM Statements (AMRDEC)
- Supportability Certification (Dir, AMCOM ALC) (I)**
- 26 - Supportability Certification (ALC)
- 27 - TMDE Supportability Statement (USATA)
- 28 - Type Classification (PEO)
- 29 - Statement of Transportation (SDDC/TEA)
- 30 - Independent Logistician Position (ASAALT)
- 31 - Supportability Statements (Other MSC)
- 32 - Software Supportability Statement (AMRDEC)

## 17. ATEC Materiel Release Position Memorandum





## 25. RAM Statement (AMRDEC RAM Engineering)

- 1 Reliability, Availability & Maintainability
  - a. Requirements
  - b. Demonstrated/predicted values
  - c. Reliability growth
  - d. Reliability Assessment from fielded units
- 2 Status of TIRs and corrective actions
- 3 Stockpile reliability Program Plans
- 4 Status of identified Aviation system RAM issues and corrective action plans.
- 5 RAM data collection plans for aviation systems being fielded.
- 6 Get Well Plan for conditions (*\* developed by MATDEV in parallel with RAM Statement*)

# Get Well Plan PM Developed in Parallel

9a CONDITION/9b PROPONENT	9c CATEGORY	10. REASON	11. INTERIM SOLUTION	12. GET WELL TARGET DATE	13. REMARKS/FUNDING
<p>E-008, KSA 2c,  Mean Time to Repair (MTTR) performance did not meet requirements.</p> <p><b>PROPONENT:</b> RDMR-SER (RAM)</p>	<p><b>Suitability</b></p>	<p>During FDTE/IOT, operator and maintainer errors contributed to unnecessary troubleshooting tasks and excessive maintenance times. Use of Draft IETM may have contributes to excessive task times.</p>	<p>Operate IAW Limitations and Restrictions in AWRs.</p>	<p>30 NOV 2014</p>	<p><b>For Closure:</b> Performance will be reevaluated, after the approved IETM is in use and as more A/C are fielded, to determine if MTTR meets requirement. <b>FUNDING:</b> Funded by W99RZA-09-C-0101 (LRIP) contract.</p>
<p>E-009, KSA 5a,  CPD Requirement for Soldier fuel handling has not been met.</p> <p><b>PROPONENT:</b> ATEC</p>	<p><b>Supportability</b></p>	<p>Soldier fuel handling not demonstrated</p>	<p>Field Service Representatives continue perform defuel ops using Defuel bowser and existing procedures.</p>	<p>31-May-2015</p>	<p><b>For Closure:</b> Develop Defuel device (hose) and procedures for Soldier fuel handling (ECD: 3QFY15) Successfully demonstrate Soldier fuel handling to CPD requirements at LogDemo3 (1QFY15) and/or FOTE (3QFY15). <b>FUNDING:</b> Currently funded under PM Test and Evaluation FY15 funding</p>

**Software MR (SMR) or a software release (SR) action is required for changes in software and/or firmware, including programs, routines and symbolic languages that control the functioning of the hardware and direct its operation (even when it is not part of a materiel modification).**

- **When the materiel is fielded through the MR process, the software associated with that materiel is simultaneously certified.**
- **When the materiel (system) and software both require MR, the software is released as part of the materiel (system).**
- **When the materiel (system) does not require a MR, but the software does, the software will undergo the SMR process on its own.**
- **Depending on the scope of the software change, software fixes sometimes called patches may be addressed using a SR provided safety, suitability and/or supportability are not affected.**

**Table 4-6**  
**Software release requirements**

Aspect or Characteristic	Type statement or Certification	Type of SMR				Functional Authority
		F	C	D	U	
<b>Safe</b> Hazards are identified and eliminated or accepted	1. Supporting safety office certification.	X	X	X	X	Supporting safety office
<b>Suitability</b> —Effectiveness —Survivability —Reliability —Supportability —Interoperability	2. Airworthiness statement (see AR 70-62).	X	X	X		AMCOM Aviation Engineering Directorate or other designated airworthiness authority
	3. CIO/G-6 AIC statement based on AIC completion (see AR 25-1).	X	X	X	X	CIO/G-6
	4. DIACAP certification statement (see AR 25-2).	X	X	X	X	CIO/G-6
	5. CLSA statement for COMSEC accreditation and availability. <sup>1</sup>	X	X	X		CSLA for Army adopted items National Security Agency for new items
	6. TRADOC training assessment (statement of adequacy of institutional training support) (see AR 350-1).	X	X	X		Applicable TRADOC school or other assigned CAPDEV, trainer, MATDEV, or SEC
	7. Software suitability statement (normally provided by the LCMC SEC) <sup>2</sup> .	X	X	X		AMC LCMC certifying activity (for example, SEC and SED)
	8. Quality, reliability, and maintainability statement.	X	X	X		Applicable MATDEV
	<b>Supportable</b> Support strategy to meet Soldier's requirements	9. Software supportability.	X	X	X	
10. Get-well plan.			X			Applicable MATDEV
<b>Other</b>	11. Acceptance statement. <sup>3</sup>	X	X	X	X	Applicable SEC

Legend for Table 4-6:

F=full; C=conditional; D=database or dataset; U=urgent; X=required

## 1. Requirements Documentation (place holder if Classified)

- **User Requested**
  - or ➤ **JUONS**
  - **Written Request from Gaining Command (GC)**  
and
  - **ONS G3/5/7 Validation or Directed Requirement Memorandum**
- **HQDA Directed**
  - **G3/5/7 Approved Capabilities Document**  
and
  - **G3/5/7 Directed Requirement Memorandum**

## 2. Safety and Health Data Sheet w/ Risk Assessment

## 3. Air Worthiness statement, if applicable

## 4. EOD supportability statement, if applicable

## 5. PM Request for acceptance from the GC or requestor

## 6. Gaining Command acceptance statement

## 7. Statement regarding Transportability

## 8. ATEC / DTC Input (per CG's request)

## 9. Seven MRRB votes

\*UMRs are restricted to specific quantity and location.

**Matériel Release is a required, formal certification that Army matériel is safe, suitable, and supportable *before* going to Full Rate Production (FRP) or issue to the Soldier.**

- **What are the RAM requirements?**
- **What RAM data is available and what does it show?**
- **MR Conditions for any shortfalls.**
- **Get-well plan for every condition.**