SUMMARY of CHANGE

AR 702-6
Ammunition Stockpile Reliability Program

This major revision, dated 23 June 2009--

- Adds DA Pam 385-63 for policy and guidance on explosive safety (para 2-2a(4)).
- Makes editorial changes (throughout).
**History.** This publication is a major revision.

**Summary.** This regulation provides guidance and assigns responsibilities for managing the Ammunition Stockpile Reliability Program.

**Applicability.** This regulation applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated.

**Proponent and exception authority.** The proponent of this regulation is the Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity’s senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Army management control process.** This regulation does not contain management control provisions.

**Supplementation.** Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G–4 (DALO–SUM), 500 Army Pentagon, Washington, DC 20310–0500.

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Office of the Deputy Chief of Staff, G–4 (DALO–SUM), 500 Army Pentagon, Washington, DC 20310–0500.

**Distribution.** This publication is available in electronic media only and is intended for command levels C and D for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.
Chapter 1
Introduction

1–1. Purpose
This regulation prescribes policy, responsibilities, and guidance on the Ammunition Stockpile Reliability Program (ASRP). The ASRP provides “cradle to grave” responsibilities, to include demilitarization, for monitoring the performance, reliability, and safety characteristics of ammunition items and class V components. This program apply to conventional and chemical ammunition, small and large rockets, guided missile ammunition, and associated materiel.

1–2. References
Required and related publications and prescribed and referenced forms are listed in appendix A.

1–3. Explanation of abbreviations and terms
Abbreviations and special terms used in this regulation are explained in the glossary.

1–4. Responsibilities
   a. Deputy Chief of Staff, G–4. The DCS, G–4 will—
      (1) Serve as the principal staff element for developing and disseminating ASRP policy.
      (2) Have primary staff responsibility for identifying all munitions, equipment, and materiel requirements and services to conduct the ASRP to include the use of automatic identification technology to the fullest extent possible.
      (3) Implement explosives safety criteria as established by the Army Director of Safety and the Department of Defense Explosives Safety Board.
      (4) Develop policy for the logistics aspects of the ASRP.
      (5) Review and approve program and funds for Operations and Maintenance, Army (OMA) requirements for conduct of the ASRP. Include these requirements in the Army materiel plan.
      (6) Evaluate ASRP results to determine the effectiveness of the program.
      (7) Consolidate and validate all Army munitions requirements.
      (8) Prioritize all munitions in support of validated requirements, to include munitions required to support ASRP.
      (9) Provide policy regarding the development and management of munitions requirements and priorities.
   b. Assistant Secretary of the Army for Acquisition, Logistics, and Technology. The ASA(ALT) will review, program, and approve funds for procurement ammunition Army (PAA) and research, development, test, and evaluation (RDT&E) appropriations requirements for the ASRP.
   c. Chief of Staff, Army. The CSA has general staff responsibility for the Army Safety Program and will—
      (1) Develop and monitor the Armywide policy and criteria for the ammunition and explosives safety program as an integral part of the Army Safety Program.
      (2) Establish Department of the Army (DA) explosives safety standards.
   d. Assistant Chief of Staff for Installation Management. The ACSIM will monitor the ASRP policy and program documents to determine compliance with the National Environmental Policy Act and other applicable requirements to ensure integration of environmental considerations into the decision making process.
   e. Heads of other Department of the Army agencies. The heads of other DA agencies will provide management and staff supervision within their respective functional areas in support of the ASRP.
   f. Commanding General, U.S. Army Materiel Command. The CG, AMC will—
      (1) Conduct the ASRP and accumulate and maintain data and findings for comparison with results of previous and subsequent tests.
      (2) Coordinate with major field commands and technical agencies as required, in conducting the ASRP.
      (3) Budget and program for the ASRP. Provide the ASA (ALT) and DCS, G–4 with budget and program requirements through established channels. The AMC budget and program will include those funds required to support AMC in the conduct of the ASRP.
      (4) Provide quality assurance specialist ammunition surveillance (QASAS) personnel for conducting the ammunition surveillance program per AR 702–12.
      (5) Ensure that the proper lifecycle management commands maintain effective procedures for ammunition surveillance inspections worldwide.
      (6) Review ASRP guidance and findings continually to ensure that the scope, methodology, and sample sizes for inspections and tests remain consistent with objectives, changing priorities, and operational experience.
      (7) Identify and conduct engineering and logistic corrective actions and develop schedules and resource needs required to restore and maintain the ammunition stockpile.
      (8) Manage the system of supply bulletins pertaining to field tests and inspection of ammunition items.
      (9) Manage the system of ammunition stockpile test procedures covering other stockpile testing conducted where
laboratory type tests are performed with special suitcase or mobile van test equipment, or conducted in special facilities such as the theater readiness monitor facility. Laboratory tests are also performed at the following facilities:

(a) Proving grounds.
(b) Laboratories.
(c) Training facilities.
(d) Storage and field locations.

(10) Provide the DCS, G–4 with a summary of the test results.

(11) On the basis of consultations with the appropriate subject matter experts, the CG, AMC will recommend appropriate action to the DCS, G–4. Notify the DCS, G–4 when test and analysis of an ammunition item has resulted in a recommendation for shelf-life nonextension that will significantly impact the Army’s inventory of a weapon system. Supporting documentation from the analysis activity will be provided for review to facilitate disposition.

(12) Support the program and fund modernization efforts to improve ASRP methods and test/diagnostic equipment.

g. Commanders of Army Commands, Army Service Component Commands, and Direct Reporting Units except U.S. Army Materiel Command. The Commanders ACOMs, ASCCs, and DRUs, except AMC, will—

(1) Provide support within their mission and capability as requested by the CG, AMC for any portion of the ASRP that is conducted within their functional area of responsibility. This support will be provided on a nonreimbursable basis and will include—

(a) Furnishing test ranges, facilities, and firing units as appropriate.
(b) Recovering test materiel.
(c) Moving related troops and materiel belonging to the supporting command.

(2) Program, budget, and fund subordinate commands and installations for conducting surveillance inspections on those ammunition items accountable to these commands and installations.

(3) Provide AMC with budget and program funding requirements that are beyond the requirements specified in 1–4 g (1) above and identified and required to support the ASRP functions performed by AMC installations and personnel. Funds required for other programs conducted in conjunction with the ASRP, such as annual service practice firings, will be excluded.

h. Project executive officers/project managers. The project executive officers/project managers will—

(1) To minimize future ASRP testing, provide necessary manpower and funding during development to optimize the design. Prior to fielding, document life-limiting components identified as a result of reliability testing and/or predictive technology.

(2) Develop and manage the ASRP until the item is fielded.

(3) Establish the maximum acceptable degradation that can occur in the critical performance parameters without impeding mission performance.

(4) Provide ASRP OMA budget estimates to life cycle management commands (LCMCs) 2 years prior to fielding the system.

(5) Fund, design, build, and maintain any unique specialized test or diagnostic equipment necessary to conduct future ASRP testing.

i. Heads of installations, activities, or commands with an ammunition mission. Heads of installations, activities, or commands with an ammunition mission will establish and maintain an ammunition surveillance program per this regulation.

j. Director, U.S. Army Materiel Systems Analysis Activity The Director, ASMSAA will—

(1) Perform an overview of the overall program for AMC to ensure that individual programs are being conducted satisfactorily and that the methodologies being used and the results emanating are the best that can be obtained.

(2) Perform special investigations and studies of the program for AMC as required.

1–5. Objectives
The objectives of the ASRP are to—

a. Establish the initial shelf life and/or certification period requirements.

b. Establish the activities necessary to ensure that sufficient data is available to make shelf life/certification period decisions.

c. Ensure the stockpile continues to meet established performance, explosives safety, readiness, and reliability requirements.

d. Identify trends in reliability and critical performance parameters to provide for timely decisionmaking on replacement, procurement, or maintenance for expiring ammunition items required for maintaining the stockpile inventory.

e. Identify ammunition items that require maintenance, retrograde, or disposal.

f. Provide data to support investigation of ammunition malfunctions occurring in type-classified materiel to determine if the ammunition is safe for continued storage, handling, transportation, and use.
g. Identify ammunition items with marginal reliability of performance not affecting safety of use for priority-of-issue and restricted use.

h. Identify ammunition and components with degrading performance affecting system safety for restricted use and corrective actions.

i. Identify assets that require corrective action to restore them to a satisfactory condition. These data will also provide a basis for determining the engineering and logistic corrective actions required.

j. Provide a basis for determining if the ammunition shelf life or certification period can be extended or if a new shelf life or certification period must be established through scheduled maintenance. If the need for scheduled maintenance is indicated, provide the basis for determining the level of scheduled maintenance required.

k. Identify weak links in designs by using predictive methods during research and development (R&D).

Chapter 2
Ammunition Stockpile Reliability Program Policy

2–1. Policy of the Ammunition Stockpile Reliability Program

a. The validity of the Ammunition Stockpile Reliability Program. The ASRP has proven essential for providing the data needed to ensure the readiness of the Army’s missiles, rockets, and other ammunitions. Missiles, rockets, conventional ammunitions, and other class V items spend nearly all of their life in dormancy but must always be ready for activation. Thus an Army program that continually measures stockpile reliability is essential for providing data to ensure that ammunition and ammunition components, available for issue and use, are safe and reliable.

b. The Ammunition Stockpile Reliability Program support agreements and memoranda of understanding. Intraser-vice support agreements will be developed between AMC and major field commands as appropriate.

c. The Ammunition Stockpile Reliability Program inspection policy.

(1) All ammunition surveillance program inspections will be performed by QASAS career program personnel as described in paragraph 2–2a.

(2) Military ammunition specialist (military occupation specialty 89B (Staff Sergeant/Sergeant First Class)) and trained, designated civilian technicians (including local nationals in overseas locations) may supplement the QASAS in carrying out the surveillance program. Duties assigned to these personnel must be performed under the supervision of a QASAS.

(3) The visual inspections and tests normally performed by the QASAS encompass all elements and apply to all DA activities that have a receipt, storage, issue, maintenance, surveillance, or test mission for ammunition.

d. Environmental policy. The ASRP will comply with Army policy on the environment. This policy will be applied as required by AR 200–1.

2–2. Elements of the Ammunition Stockpile Reliability Program

The ASRP consists of the ammunition surveillance program, RDT&E elements, stockpile function test program, and stockpile laboratory test program. Depending on the type and nature of the ammunition item to be evaluated, any part or all of these programs will be used.

a. Ammunition Surveillance Program.

(1) The ammunition surveillance program is an integral part of the ASRP. It determines the functional and nonfunctional characteristics of the ammunition stockpile. The program includes, but is not limited to, visual inspections and tests (such as initial receipt, cyclic inspection, and basic load) as well as review and evaluation of the full range of logistic operations and explosives safety functions. It is also conducted as part of the supply readiness program or other quality control activities. The ammunition surveillance program is established by AR 702–12 and 740–1. Procedures for implementing this program are in Supply Bulletin (SB) 742–1 and other supporting SBs.

(2) Wholesale and retail quantities of ammunition and related materiel stored at depots, depot activities, plants and arsenals, proving grounds, theater storage areas, ammunition supply points, and using units are subject to the ammunition surveillance program. This also includes project stocks, operational loads, prepositioned war reserve, and components used for assembling ammunition.

(3) The QASAS evaluates stocks reported to have been subjected to unsatisfactory or abnormal conditions during this element of the ASRP for possible inclusion in the programs described in paragraph 2–2a(4)(b) through paragraph 2–2a(4)(d) below.

(4) At installations where a QASAS is assigned, explosives safety functions included in this element of the ASRP are performed by the QASAS or under QASAS supervision. (See AR 385–10, AR 385–63, DA Pam 385–63, and DA Pam 385–64 for policy and guidance on explosives safety.) These explosives safety functions include—

(a) Determining compliance with quantity distance and storage compatibility procedures.

(b) Reviewing explosive safety waivers and deviations.

(c) Managing the ammunition suspension, restriction, and release program.
(d) Checking for deterioration or damage that will affect safety.

(e) Ensuring, through an effective operation program, that suitable facilities and equipment are used during storage, processing, handling, and transportation, to include research, test, and development operations involving explosive items.

(f) Reviewing and evaluating ammunition condition during supply and maintenance operations.

(g) Monitoring troop safety in combat, training, and contingency operations.

(h) Implementing assigned chemical safety and surety functions as defined in AR 50–6.

(i) Performing investigations and reports on conventional/missile malfunctions in accordance with AR 75–1.  

b. Research, development, test, and evaluation. This portion of the program establishes initial shelf life. This phase also focuses on identifying critical life-limiting components during design and development. It is carried out by—

(1) Reliability testing and predictive technology test methods.

(2) Incorporating ammunition designs that provide the capability for nondestructive test/access.

(3) Designing and building specialized ASRP test and diagnostic equipment.

c. Stockpile Function Test Program. This program determines functional reliability, detects trends in stockpile performance, and provides critical assessments to stockpile managers to assist in and serve as a basis for, decisions impacting the stockpile. The program is managed by the field/stockpile materiel commodity commands. It is accomplished through—

(1) Function tests at ammunition test facilities including proving grounds. This element pertains to ammunition items such as mortars, antitank mines, large and small caliber guns and howitzer ammunition, cartridge-actuated devices, propellant-actuated devices, and missiles requiring special facilities and equipment for testing and data collection. (This includes missile and rocket firings at ranges for the purpose of reliability and performance assessments related to ASRP.) For the conduct of these tests, the stockpile is classified into representative segments, by production lots, manufacturer, storage locations, or climatic conditions. Samples from the segments are then selected, tested, and rated for reliability, performance, and serviceability of the stockpile as a whole.

(2) Function tests at the Crane Army Ammunition Activity Universal Surveillance Function Test Range or Korea Test Facility. 

(a) Tests in this element pertain to items such as—

1. Pyrotechnics.

2. Signals and simulators.

3. Hand grenades and antipersonnel mines.

4. Certain chemical items with fillers of smoke that do not require extensive use of instruments or range facilities.

5. Certain demolition items that do not require extensive use of instruments or range facilities.

(b) Tests for these items are conducted on the lots according to the procedures specified in SB 742–1 and the appropriate SB or ammunition stockpile test procedure, as directed by the material commodity command. The tests are performed under the direction of the QASAS.

(3) Function tests at training facilities. Annual service practice firings of large rockets and guided missiles, conducted by military units, are used to supplement the ballistic performance and reliability data obtained during other elements of the ASRP. In some cases, these firings may be monitored by telemetry or other equipment, as required, to collect stockpile reliability data.

(4) Special function tests are held as directed by the materiel commodity command. These include test performed by mobile test vans or suite case type testers to collect parametric data for reliability and age trend analysis. These tests may be independent of, or added to, other inspections and tests included in this regulation. Special function tests are used to—

(a) Determine the extent of degradation of a specific portion of the stockpile, for example, lot-by-lot testing of a stockpile segment that is marginally reliable.

(b) Revise or establish criteria for surveillance, service life, shelf life, or similar yardsticks for items currently in use or in stock.

d. Stockpile Laboratory Test Program. 

(1) The program objectives are to—

(a) Determine the condition of the ammunition stockpile through inspection and test.

(b) Quantify degradation and deterioration as a function of time, location, method of storage and operational use and/or other stockpile stratification.

(c) Predict remaining useful life, safety and reliability.

(d) Provide essential feedback to improve maintenance and repair, support malfunction and deficiency investigations, and develop lessons learned for process and design relations problems, which in turn structure R&D, future test, and procurement strategies. Testing for this element of the ASRP is primarily for munitions (full-up systems, subsystems, subassemblies and components) for which variable data can be measured for analysis. The analysis of the variable data will provide trend predictions to be used as a tool to determine life expectancy and actively detect safety...
and performance deficiencies. This information will be used by engineering centers to make decisions with respect to actions to be taken on fielded munitions and on design changes to existing and future munitions.

(2) The program—
(a) Uses destructive and nondestructive testing techniques.
(b) Uses both standard test equipment and special-purpose test equipment dedicated to specific munitions.
(c) Uses the existing lab capacity of the AMC LCMCs, other Government agencies, munitions contractors, or independent contractors.
(d) Determines if items are safe for continued storage, handling, transportation, or use.
(e) Should predict marginal reliability or performance of the stockpile prior to its actual occurrence.

(3) Stockpile laboratory tests may be independent of, or supplemental to, other inspections and tests as shown below. Items that are nondestructively tested will be returned to the stockpile in a restored, ready-for-issue condition, if serviceable.
(a) Examples of items conducive to laboratory testing are as follows: toxic chemicals, propellants, cartridge-actuated devices, propellant-actuated devices, and complex conventional ammunition and components.
(b) Examples of missile items are—
1. All-up-round electrical or mechanical tests.
2. Component level testing including warheads/submunitions, fuzes, safe and arm devices, motors, squibs/initiators, gyroscopes, accumulators, electro-optical/millimeter wave seekers, autopilots, control sections, and payload delivery devices.

(4) The stockpile laboratory/diagnostic test program is managed by the materiel commodity commands. The tests—
(a) May be either destructive or nondestructive.
(b) Are conducted to detect trends or changes in the item’s quality.
(c) Results determine the item’s serviceability.
(d) Establishes, confirms, or revises the shelf life periods for the items.
(e) Perform chemical analysis of double-base, composite-modified double-base, and minimum-signature propellant to determine the stabilizer content, and estimate the remaining safe storage life. This analysis is conducted periodically throughout the life of the propellant until all quantities of the propellant have been demilitarized.

2–3. Funding the Ammunition Stockpile Reliability Program
The ASRP elements described in paragraph 2–2 will be funded as follows:

a. Inspections performed as part of normal storage functions carried out during execution of the ammunition wholesale supply mission are chargeable to OMA P.E. 424041 appropriations. Missile items are to be funded by OMA P.E. 422123. This wholesale mission includes inspections and tests to validate the supply readiness of ammunition end items and components, as well as preservation, packaging, and packing performed during receipt, storage, issue, and shipment and involves—

1. Cyclic inspections (performed at regular intervals specified in SBs) or special instructions to verify the serviceability of ammunition items and components in the wholesale inventory.
2. Component, small arms ammunition trace and centralized controlled function tests of a cyclic nature performed at designated testing locations.
3. All noncyclic tests and inspections of ammunition items or components that are part of the wholesale inventory are specified in paragraph 2–3b(1) through paragraph 2–3b(5) below. All tests and inspections prescribed for accomplishment by the operational user are user funded.

1. All ASRP activities required prior to fielding of the item will be financed using RDT&E funds provided by the responsible item developer.
2. Noncyclic inspections directed by materiel commodity commands or other higher authority, including special inspections, inspections for the stockpile laboratory testing program, and noncyclic function tests, will be funded by the end item manager with OMA P.E. 424041 for conventional and OMA P.E. 422123 for missile items.
3. Verification inspections, and other inspections and tests, performed by depot level maintenance activities (for example, overhaul and repair) will be financed with the same OMA funds that are currently financing the maintenance effort.
4. Tests and inspections of industrial stocks, to be used in the production of ammunition, are chargeable to OMA funds. Components required to complete work in process will be funded using PAA funds.
5. Financing ASRP for systems no longer active in the U.S. inventory will be funded as in paragraph 2–3b(1) through paragraph 2–3b(4) above. Security Assistance Program (SAP) funds may also be appropriate for these programs. If applicable, every effort should be made to obtain SAP funds for these programs.
Appendix A
References

Section I
Required Publications
This section contains no entries.

Section II
Related Publications
A related publication is a source of information. The user does not have to read it to understand the publication.

AR 50–6
Chemical Surety

AR 75–1
Malfunctions Involving Ammunition and Explosives

AR 200–1
Environmental Protection and Enhancement

AR 385–10
The Army Safety Program

AR 385–63
Range Safety

AR 702–12
Quality Assurance Specialist (Ammunition Surveillance)

AR 740–1
Storage and Supply Activity Operations

DA Pam 385–63
Range Safety

DA Pam 385–64
Ammunition and Explosives Safety Standards

SB 742–1
Inspection of Supplies and Equipment Ammunition Surveillance Procedures

Section III
Prescribed Forms
This section contains no entries

Section IV
Referenced Forms
This section contains no entries.
Glossary

Section I
Abbreviations

ACOM
Army Command

AMC
United States Army Materiel Command

ASRP
Ammunition Stockpile Reliability Program

ASA(ALT)
Assistant Secretary of the Army (Acquisition, Logistics and Technology)

ASCC
Army Service Component Command

CG
commanding general

DA
Department of the Army

DCS, G–4
Deputy Chief of Staff, G–4

DCS, G–3/5/7
Deputy Chief of Staff, G–3/5/7

DRU
Direct Reporting Unit

LCMC
life cycle management commands

OMA
Operation and maintenance, Army

PAA
procurement of ammunition, Army

QASAS
quality assurance specialist (ammunition surveillance)

R&D
research and development

RDT&E
research, development, test, and evaluation

SAP
security assistance program

SB
supply bulletin
Section II
Terms

Automatic identification technology
A suite of technologies that enables the automatic capture of source data, thereby enhancing the ability to identify, track, document, and control materiel, maintenance processes, deploying forces, equipment, personnel, and cargo. Automatic identification technology encompasses a number of read-write data storage technologies that captures assets.

Certification period
The length of the certified round logistics support concept in which the round has a confirmed level of reliability to perform its specified function without maintenance actions. The expiration of the period renders the round unserviceable unless maintenance is performed.

Certified round
A logistics concept during the operations and support phase of the life cycle. A certified round has a predictable and acceptable level of reliability over a specified certification period. During this period it is maintenance free (excluding exceptions such as paint touch up). It requires periodic assessment of a statistical sample during the certification period to evaluate the reliability predictions. Either preventative or corrective maintenance is required at the end of the certification period to retain the missile in a serviceable condition. The certification period may be extended without maintenance based on the result of the Stockpile Reliability Program. Certified rounds are considered to be temporarily maintenance free for a certain certification period.

Life-limiting component
A component (or manufacturing process of a component) in the design which precludes indefinite storage life, due to age related degradation.

Shelf life
The predicted usable life of an item or component materiel.

Weak link
Component of an item design that will degrade faster than other components rendering the item unusable.

Section III
Special Abbreviations and Terms
This section contains no entries.