Department of the Army
Pamphlet 600–3–52

Functional Area 52

Nuclear Weapons

Headquarters
Department of the Army
Washington, DC
1 August 1987

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SUMMARY of CHANGE

DA PAM 600–3–52
Nuclear Weapons

Not applicable.

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NUCLEAR WEAPONS

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***Department of the Army Pamphlet 600–3–52**

Functional Area 52

Nuclear Weapons

By Order of the Secretary of the Army:

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Contents (Listed by paragraph and page number)

Figure List

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Contents—Continued

1. Description.

Functional Area 52 (FA52) trains and develops commissioned officers for assignments in the nuclear weapons field. FA52 is divided into two Areas of Concentration (AOC): AOC 52A, Nuclear Weapons Operations Staff Officer and AOC 526, Nuclear Weapons Research Specialist.

a. FA52 officers assist in formulating national, Army, and theater–level strategy, plans, and policies regarding nuclear weapons; planning and employment of nuclear weapons supporting tactical, theater, and strategic operations; training of nuclear–capable units and nuclear weapons personnel; nuclear surety; and management of the Nonstrategic Nuclear Force Survivability, Security and Safety (NSNFS3) program.

b. Some officers are also involved in the various aspects of nuclear weapons life cycle management. They establish requirements; participate in the development, testing, and production of nuclear components and finished systems; manage nuclear weapons acquisition programs; develop integrated logistics systems; conduct research to predict the effects of nuclear weapons on materiel; recommend nuclear effects levels for survivability of battlefield equipment; manage the nuclear weapons stockpile; and oversee weapon retirements.

2. Role of Nuclear Weapons Officers.

a. The complexity of today's AirLand Battlefield presents a demanding challenge for all concerned. Conflicts to which U. S. forces may be committed cover a wide variety of situations and conditions, i. e., threat capabilities, geographic ranges, political or strategic objectives, and spectrum of conflict. When the threat of nuclear employment or actual use of nuclear weapons is included on the battlefield, it pervades military operations. The employment of nuclear weapons has the potential to dramatically alter the balance between firepower and maneuver, accelerate the tempo and destructiveness of operations, and tends to enlarge the geographic area of conflict. Decisive battles could last hours instead of days or weeks. The course of campaigns could be radically altered or accelerated by nuclear strikes. The challenge is to be prepared to fight and win with nuclear weapons on the battlefield.

b. Nuclear Weapons Officers are needed to help the Army meet this challenge both in peacetime and wartime. The Nuclear Weapons Officer is involved in every aspect of the nuclear weapons mission. The skills of the Nuclear Weapons Officer are required in such areas as strategy, plans and policies; operational and tactical employment; stockpile management; training; logistics; nuclear effects on the battlefield; safety; security and survivability; effects research and analysis; vulnerability analysis; surety; arms control; and research, development and acquisition activities.

Figure 2. Providing the commander both flexibility and deterrence on the battlefield

3. Participation.

Officers may, within Army requirements, have nuclear weapons designated as their Functional Area. Normally, this means that it is designated at the seventh year of service, although earlier designation, which may be influenced by an officer's previous special training, assignments, or educational background, is possible. Officers who are nearing their sixth to seventh year of commissioned service and the Functional Area designation point may indicate their desire to be a Nuclear Weapons Officer (FA52) to their branch assignments officer. A more formal discussion of Functional Area 52 development and designation procedures is contained in Department of the Army Pamphlet 600–3 (Commissioned Officer Professional Development and Utilization) and Army Regulation 611–101 (Commissioned Officer Classification System).

Figure 3. Field Command Defense Nuclear Agency conducting exercise: NUWAX

4. Education and Training.

a. The two FA52 AOC's have different accession requirements. Although not mandatory, it is preferred that the Nuclear Weapons Operations Staff Officer (AOC 52A) have formal training at the baccalaureate level in a scientific or engineering related discipline. These positions are operationally oriented. Therefore, the primary consideration is the officer's field experience. In this regard, it is desired that a majority of the FA52 officers come from these Combat Arms Branches (Infantry, Armor, Field Artillery, Air Defense Artillery, and Engineer).

b. The Nuclear Weapons Research Specialist (AOC 52B) requires formal training at the master's or Ph. D level in a scientific or engineering related discipline, such as nuclear physics, nuclear engineering, nuclear effects engineering or physics engineering.

c. There are numerous opportunities for formal military training in the nuclear weapons field. Examples of these courses are: The Nuclear Weapons Officer Orientation Course, the Army's entry–level course, provides a newly designated FA52 with the necessary background to fulfill the duties of an FA52. The Nuclear and Chemical Target Analyst Course prepares officers to perform nuclear and chemical target analysis and vulnerability assessments for which a Skill Identifier (SI) of 5H is awarded. Other complementary courses are taught to provide the officer with the background necessary for assignments to various higher Army and joint–level staff assignments. Functionally specific courses are also available to familiarize FA52 officers with the Army's stockpile of nuclear weapons. Consult DA Pam 351–4 (Army Formal Schools Catalog) for more details.

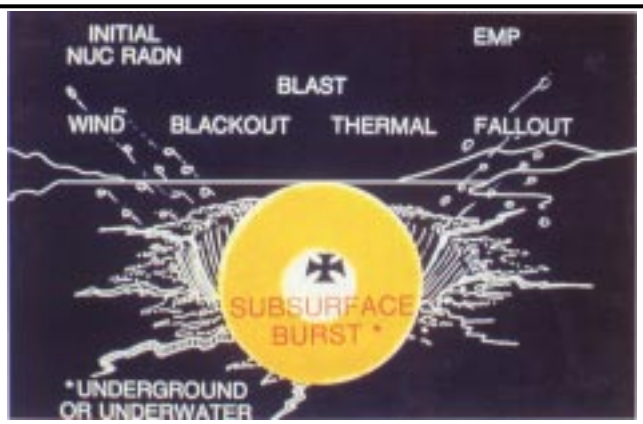

Figure 4. Education and Training

4. Advanced Civil Schooling (ACS).

a. Graduate schooling in the disciplines of Nuclear Effects Engineering, Nuclear Engineering, Nuclear Physics, Physics, Physics Engineering, and Strategic and Tactical Sciences is available on a highly competitive basis to selected officers, usually upon the officer's completion of his branch's advanced course.

b. Approximately 50% of all FA52 positions are supported for advanced degrees (master's and Ph.Ds), by the Army Educational Requirements Board (AERB) in accordance with AR 621–108 (Military Personnel Requirements for Civilian Education).

c. Officers upon graduation from the fully–funded ACS Program will be utilized in an AERB validated position consistent with their grade and the academic discipline studied. Normal utilization is for an initial 36–month tour immediately after graduation followed by at least one more tour to an AERB position during their career. The AERB positions are at the higher echelons of the military and the government.

Figure 5. Advanced Civil Schooling

Figure 6. Advanced Civil Schooling

5. Where Do Nuclear Weapons Officers Serve?.

a. Nuclear Weapons officers perform duties at most higher levels of the military and government ranging from the Corps to the Departments of Defense, Army, and Energy. FA52 officers are assigned to these commands, organizations, and activities throughout CONUS and overseas. Examples of where FA52 officers serve are: Office of the Deputy Chief of Staff for Operations and Plans (ODCSOPS) at HQDA, which has responsibility as the Focal Point for nuclear matters within the Army; the Defense Nuclear Agency; the Combined Arms Center (CAC), which has responsibility for Nuclear proponency within the Training and Doctrine Command; and the Department of Energy's national laboratories.

b. The activities and locations at which FA52s serve within the Continental United States (CONUS) are indicated on the map below.

Figure 7. Where Do Nuclear Weapons Officers Serve?

c. FA 52 officers also may be assigned to the following overseas locations:

BELGIUM:	HQ SHAPE
FEDERAL REPUBLIC OF GERMANY:	HQ EUCOM
	HQ CENTAG
	HQ USAREUR & 7A
	HQ 21ST SUPCOM
	HQ V CORPS
	HQ VII CORPS
	NATO SCHOOL
ITALY:	HQ AFSOUTH
KOREA:	HQ EUSA
NETHERLANDS:	HQ AFCE
	HQ AFCENT RESERVE CORPS
NORWAY:	HQ AFNORTH

Figure 8. Where Do Nuclear Weapons Officers Serve?

RANK	TYPICAL ASSIGNMENTS (NOT ALL INCLUSIVE)
CPT	Nuclear Weapons Officer or Operations and Plans Officer Doctrine and Training Officer Instructor Physicist or Nuclear Research Officer Nuclear Weapons Effects Officer Army Research Associate
MAJ/ LTC	Nuclear Weapons Staff Officer or Operations and Plans Officer Doctrine and Training Officer Instructor Physicist or Nuclear Research Officer Nuclear Weapons Effects Officer Test Program Manager Army Research Associate Nuclear Weapons Surety Officer Nuclear Weapons Security Officer Research and Development (R&D) Coordinator/Manager
COL	Special Assistant for Nuclear (Security, Powers, or Matters) (OSD) Deputy Director (USANCA) Chief, Nuclear Effects Division (USANCA) Chief, Nuclear Division (ODCSOPS and HQ AMC) Chief, Arms Control and Policy Officer (DNA) Director, Nuclear Assessment Directorate (DNA) Test Management Officer (DNA Fld Cmd) Director, Plans and Operations Directorate (DNA Fld Cmd)

Figure 9. Typical Assignments

6. Army Research Associates Program.

A key training program that supports AOC 52B is the Army Research Associates (ARA) Program with the Department of Energy. Under this program, officer applicants are selected and assigned to research duties at one of three national laboratories operated for the Department of Energy. They conduct research in nuclear weapons and other related technologies having direct Army interest. Officers selected are provided with scientific laboratory research and development experience in nuclear weapons effects, design, and production; and related scientific and engineering technologies. A Skill Identifier (SI) of 6X is awarded after assignment to one of these laboratories. Many AOC 52B positions for officers performing nuclear weapons materiel acquisition duties are coded with SI 6X to capitalize on an ARA's prior experience. Consult AR 614–107 (Assignment of Officers as Army Research Associates with the Department of Energy).

Figure 10. Army Research Associates Program

7. Current Field Artillery Delivery Systems.

Figure 11. Current Field Artillery Delivery Systems

Figure 12. Current Field Artillery Delivery Systems

Figure 13. Current Field Artillery Delivery Systems

Figure 14. Current Field Artillery Delivery Systems

8. Future of Functional Area 52.

a. Nuclear Weapons Officers of the future will meet many challenges. The role of the Nuclear Weapons Officers becomes more demanding as society's perceptions of this highly sensitive public issue becomes more and more acute. Further, around–the–globe Army commitments call for special perceptiveness to integrate our nuclear forces with the Armies of foreign lands.

b. In every area, Nuclear Weapons Officers can expect to confront situations drawing on their specialized expertise, their tactical and educational training, and their professionalism in the pursuit of duty.

Figure 15. Future of Functional Area 52

9. Additional FA52 Information.

ADDITIONAL FA52 INFORMATION

- Unit Distribution: 3% in TO&E (Field) Units; 97% in TDA Organizations
- Locations: 86% in CONUS; 14% in OCONUS
- Inventory: 55% are 52As; 45% are 52Bs
- Advanced Degrees
  - Master's: 53.7%; Army avg. is 26.3%
  - Ph.Ds: 3.2%; Army avg. is 0.4%
- Advanced Military Schooling
  - Above Army avg. selection rate since 1981
  - CGSC Grads: 34.9%; Army avg. is 21.2%
  - SSC Grads: 8.9%; Army avg. is 3.8%
- Promotion Potential
  - Above Army avg. selection rate since 1981
  - 1983-1985 promotion results

Promotion to	FA52 avg.	Army avg.
COL	68.7	48.6
LTC	79.2	72.8

- Proponent: Commander, Combined Arms Center, (ATTN: ATZL-CAP), Ft. Leavenworth, KS.

Figure 16. Additional FA52 Information

Figure 17. Additional FA52 Information

Figure 18. Additional FA52 Information

Figure 19. Additional FA52 Information

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