

ENLISTED EVALUATION SYSTEM

**STUDY GUIDE
FOR
MAINTAINING MOS PROFICIENCY
IN
MOS 16B**

HERCULES MISSILE CREWMAN

AUGUST 1974 TEST PERIOD

DO NOT DESTROY

EFFECTIVE UPON RECEIPT AND UNTIL RESCINDED

HEADQUARTERS, DEPARTMENT OF THE ARMY

MARCH 1974

1. **Purpose.** To provide you with information that will aid you in maintaining and improving proficiency in your MOS and in taking your MOS evaluation test.

2. **Scope.** The MOS test you will take is designed to determine how proficient you are in solving problems relating to the ENTIRE SCOPE of your MOS code. Don't make the mistake of believing that the job you are performing and the training you have received will, without additional work and study, prepare you for the test. You MUST know the WHOLE THING! AR 611-201, Enlisted Military Occupational Specialties (AR 611-202 for classified specialties), has a description of your MOS code. Read it to get an idea of what the Department of the Army expects you to be able to do.

3. **Major areas.** An appendix in this pamphlet lists the Major Areas for your MOS code. These are the activities of your MOS code in which you will be tested. You will profit from frequent referral to them while preparing for your test.

4. **Study material.** The appendix of this pamphlet which contains the Major Areas for your MOS code also contains a list of references on which your test is based. Although you will rarely, if ever, find a question on your test that is a direct extract from the references, there will be no questions in your test that are not based on the references given. There will be questions on all references. Copies of the references may not be easy to obtain. Your first sergeant or commander should be able to help you. If you are on a post with an Army Education Center, you should be able to find everything you need there. In the event a reference is changed or becomes obsolete before you take your test, study the most current information available.

5. **Study habits.** Hopefully, you have already developed good study habits. However, if you haven't, it is recommended that you request assistance from your chain of command and/or Army Education Center. It is strongly recommended that you enroll in any group study sessions offered by your command. Experience indicates that many soldiers do much better when they undertake the study mission as a joint venture. Make studying a year-round habit. Don't depend on cramming!

6. **Training courses.** The appendix that contains your study references may also contain a list of Department of the Army Correspondence Courses in which you are encouraged to enroll. Your first sergeant, training NCO, personnel officer, commander or educational advisor can assist you to do so. Department of the Army Pamphlet 351-20 contains all the information they will need. Those who have enrolled in correspondence courses report favorably on the quality of assistance and study material provided.

***This pamphlet supersedes DA Pam 12-16B for the August 1973 test period.**

(Department of the Army Pamphlet 350-10 contains all required information on the Army's formal schools while US Armed Forces Institute (USAFI) 1972 catalog (16th Edition) lists all USAFI courses available to improve your military and civilian education.) Remember, all these publications are available at your Army Education Center and your education advisor is ready to give all the assistance you need.

7. Taking the MOS test. You will be notified of the date, time, and location of testing. You are required to report at the designated time and place. Study materials, including notes and guides, are NOT to be used while taking the test. Should any special materials be required for your test, you will be told what to bring. You may bring a slide rule if you desire. Scratch paper will be provided, if needed. Be sure to answer every question to the best of your ability. If any questions appear unclear to you, mark the answer you consider the best.

8. Scores. Your score will play a big role in determining whether you will receive the rewards for proficiency, such as promotion, advanced education, and pro-pay or whether you may find yourself denied reenlistment or retention in the service. For active Army personnel (PMOS or SMOS), evaluation scores are computed based on the score you receive on your MOS evaluation test (and on your MOS performance test, if administered) and the scores carried forward from your efficiency reports. For Reserve Component personnel not on active duty, scores are based only on the tests administered. See Chapter 5 of AR 600-200 and DA Pamphlet 611-8 for a more thorough explanation of the enlisted evaluation system.

9. Report. The Enlisted Evaluation Center at Fort Benjamin Harrison will send you a report (USAEEC Form 10) through your Test Control Officer and command channels that will advise you on how you perform on the test. (If you are in the Active Army, your report will also reflect your Efficiency Report standing.) When your report arrives at your unit, your commander will discuss it with you and, if warranted, suggest ways in which you might improve.

10. Retention of the MOS study guide. Keep this study guide until you receive the one for next year. Use it for your year-round study guide. You will probably find that next year's publication will be very much like this one. Generally, the most frequent reason for change is to update the references. Use the most current study guide available, but don't neglect your studies because you are waiting for a new one.

The proponent agency of this pamphlet is the US Army Military Personnel Center. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications) to Commander, US Army Enlisted Evaluation Center, ATTN: EPEECE, Bldg 1, Fort Benjamin Harrison, IN 46249.

By Order of the Secretary of the Army:

Official:
VERNE L. BOWERS,
Major General, United States Army,
The Adjutant General.

CREIGHTON W. ABRAMS,
General, United States Army,
Chief of Staff.

APPENDIX A

MOSC 16B10/20

MAJOR AREAS

1. NIKE HERCULES GUIDED MISSILE, MISSILE ASSEMBLY, AND CHECKOUT.
 - 1-1. Functions and theory of operation of the Nike Hercules missile and components.
 - 1-2. Assembly and test of the Nike Hercules missile; forward and aft body sections, warhead section, rocket motor, and associated missile components.
 - 1-3. Checkout and installation of missile explosive components and final preparation procedures.

2. OPERATION OF NIKE HERCULES LAUNCHING AREA EQUIPMENT.
 - 2-1. Operation of trailer-mounted launching control station; launching control console and flight simulator group.
 - 2-2. Operation of launching section equipment; section control group, launcher control indicator, monorail launcher, and associated equipment.
 - 2-3. Operation and use of related items of equipment, such as missile firing simulator, firing sequence indicator, intrabattery communication system, and auxiliary launching platoon equipment.
 - 2-4. Generators and converters.

3. CHECKS AND MAINTENANCE OF MISSILE AND LAUNCHING AREA EQUIPMENT. Performs daily, weekly, and monthly checks, adjustments, and lubrication of launching area equipment; corrective maintenance procedures to include completeness and use of TAMMS; and use of tools and test equipment.
 - 3-1. Nike Hercules missile; air and oil servicing of the hydraulic pumping unit.
 - 3-2. Monorail launcher and associated equipment; section control group, launcher control indicator, and launching control group.
 - 3-3. Operational checks; prefire, automatic fire and launch order, launcher acquire and command, gyro-azimuth transmission, and command calibration.
 - 3-4. Preventive maintenance of Nike Hercules communications equipment and other launching platoon equipment.
 - 3-5. Use of tools and test and handling equipment.

4. BATTERY OPERATIONS.
 - 4-1. Employment of Nike Hercules missile and associated equipment; battery operations, capabilities, alert status, condition of readiness, and surface-to-surface requirements.
 - 4-2. March order and emplacement of launching platoon equipment; orientation and alinement.
 - 4-3. Safeguarding defense information and nuclear surety.

5. EMERGENCY ACTIONS AND SAFETY.
 - 5-1. Isolation and disarm.
 - 5-2. Emergency destruct of missiles and launching platoon equipment; sequence, proper placement, and use of explosives.
 - 5-3. Nuclear accidents and incidents.
 - 5-4. Safety: proper groundings, safety signs and precautions, explosive, and equipment operations.

6. MOVEMENT AND STORAGE PROCEDURES.
 - 6-1. Packaging of missile, missile components, explosive components, and launching platoon equipment. Use of desiccants and air or nitrogen, markings, signs, storage inspections, and maintenance of records.
 - 6-2. Movement procedures: preparation for movement of ready round within launching area, movement through public environment, signs, markings, and vehicle requirements.

STUDY REFERENCES

The numbers to the right of the page correspond with the major areas of your test and indicate the major area(s) to which each reference applies.

REFERENCES

MAJOR AREAS

Army Regulations	
50-5, 8 Nov 73, Chapters 2, 5	4, 5
380-5, 12 Dec 72, Chapter 2	4
 Field Manuals	
5-25, 5 Feb 71, Chapters 2, 5	5, 6
44-82, 29 Nov 68, Chapters 17, 18	4
 Lubrication Order	
9-1400-250-20, 7 Jan 65, C 2, Chapters 1, 2	3
 Technical Manuals	
(C) 9-1100-250-12, 30 Jun 67, C 21-1, Sections 2-4, 8, 10-12, 14, 21, 22	1, 3, 5, 6
9-1410-250-12/1, 27 Nov 67, C 8, Chapters 3, 4, 9, 10, 15	1, 3, 5, 6
(C) 9-1410-250-12/2, 27 Nov 67, C 1, Chapters 2, 3	1, 3, 6
9-1425-250-12/1, 25 Mar 68, C 3, Chapter 4	2, 3
9-1440-250-10/1, 29 Nov 65, C 2, Chapters 2-4	2, 3
9-1440-250-12/1, 28 Jun 65, C 12, Sections II, III; Appendix I	2-5
9-1440-250-12/2, 29 Aug 66, C 2, Chapters 2-4, 8	2-4, 6
9-1440-250-20/1, 22 Mar 65, C 5, Chapters 2, 3	2, 5
(C) 9-1440-250-20/2, 9 Apr 65, C 6, Chapter 2	2, 3
9-1450-250-12, 26 May 64, C 2, Chapter 4	3
38-750, 21 Nov 72, Chapters 3, 4	3, 6

TRAINING COURSES

The courses and/or subcourses which will help you most are:

<u>Subcourse Number</u>	<u>Subcourse Title</u>
AIR DEFENSE 800	Nike Hercules Missile Crewman, Part I (16B20)

APPENDIX B

MOSC 16B40

MAJOR AREAS

1. NIKE HERCULES GUIDED MISSILE, MISSILE ASSEMBLY, AND CHECKOUT.
 - 1-1. Assists and supervises assembly of missile and missile components.
 - 1-2. Operation of the missile guidance, hydraulic, and propulsion systems and components.
 - 1-3. Assists and supervises in the assembly, final preparation, and test of ready round in launching area.
 - 1-4. Assists and supervises in checkout and installation of missile explosive components.
2. OPERATION OF NIKE HERCULES LAUNCHING AREA EQUIPMENT.
 - 2-1. Operation of trailer-mounted launching control station; launching control console group.
 - 2-2. Operation of launching section equipment; section control group, launcher control indicator, and monorail launcher.
 - 2-3. Assists and supervises operation and use of related items of equipment; missile flight simulator, intrabattery communication system, auxiliary launching platoon equipment, generators, and converters.
3. CHECKS AND MAINTENANCE OF MISSILE AND LAUNCHING AREA EQUIPMENT. Supervises and performs daily, weekly, and monthly checks, adjustments, and lubrication of major components, corrective maintenance procedures, preventive maintenance procedures, preventive maintenance using TAMMS, responsibilities and intervals, and use of tools and test equipment.
 - 3-1. Monorail launcher and associated equipment; section control group, launcher control indicator, and launching control group.
 - 3-2. Nike Hercules missile; air and oil servicing of the hydraulic pumping unit.
 - 3-3. Coordinates, assists, and supervises operational checks; automatic fire and launch order, launcher-acquire and command, gyro-azimuth transmission, and command calibration.
 - 3-4. Supervises and performs preventive maintenance of Nike Hercules communications equipment.
 - 3-5. Supervises techniques and procedures in the use of tools and test and handling equipment.

4. BATTERY OPERATION AND ADMINISTRATION.
 - 4-1. Assists and supervises preparation for march order launching platoon equipment.
 - 4-2. Coordinates and supervises emplacement of launching platoon equipment.
 - 4-3. Coordinates tactics and employment of the Nike Hercules missile and associated equipment; battery operations, capabilities, alert status, conditions of readiness, and surface-to-surface missile requirements.
 - 4-4. Safeguarding defense information and nuclear surety.
5. EMERGENCY ACTIONS AND SAFETY.
 - 5-1. Coordinates, assists, and supervises emergency actions, such as procedures for misfire, disarm, emergency destruct, isolation, and NAICP.
 - 5-2. Safety, such as installation of grounding rods and safety signs; safety precautions when using test and handling equipment and explosive operations.
6. MOVEMENT AND STORAGE PROCEDURES.
 - 6-1. Assists and supervises movement of Nike Hercules missile in an assembled ready round configuration; shipment of explosives to include warhead sections; proper marking of containers; signs and vehicle requirements.
 - 6-2. Performs and supervises storage procedures for Nike Hercules missile, explosive components, and launching platoon equipment; procedures for packaging missile and missile components; storage inspections and maintenance of records using TAMMS.

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50-5, 8 Nov 73, Chapters 2-4	4, 6
380-5, 12 Dec 72, Chapter 2	4
Field Manuals	
5-25, 5 Feb 71, Chapters 2-4	5, 6
44-82, 29 Nov 68, Chapters 2, 9, 17, 19	4
Lubrication Order	
9-1400-250-20, 7 Jan 65, C 2, Chapter 2	3
Technical Manuals	
(C) 9-1100-250-12, 30 Jun 67, C 21-1, Sections 3, 4, 8, 11, 12, 14, 18, 21	1, 3, 5
9-1410-250-12/1, 27 Nov 67, C 8, Chapters 3-5, 7-10, 12, 15	1, 3, 5, 6

REFERENCES

MAJOR AREAS

Technical Manuals – Continued

(C) 9-1410-250-12/2, 27 Nov 67, C 1, Chapters 2, 3 1
 9-1425-250-12/1, 25 Mar 68, C 3, Chapters 3-5 2, 3
 9-1440-250-10/1, 29 Nov 65, C 2, Chapters 2-4 1, 2, 4-6
 9-1440-250-12/1, 28 Jun 65, C 12, Sections II, III; Appendix I 1-3
 9-1440-250-12/2, 29 Aug 66, C 2, Chapters 2, 4, 5, 7, 8 3-5
 9-1440-250-20/1, 22 Mar 65, C 5, Chapter 2 3, 5
 (C) 9-1440-250-20/2, 9 Apr 65, C 6, Chapter 2 2
 9-1450-250-12, 26 May 64, C 2, Chapters 3-5 3, 4
 38-750, 21 Nov 72, Chapters 3, 4 6

TRAINING COURSES

The courses and/or subcourses which will help you most are:

<u>Subcourse Number</u>	<u>Subcourse Title</u>
AIR DEFENSE 800	Nike Hercules Missile Crewman, Part II (16B40)