TRAINING SUPPORT PACKAGE (TSP)

TSP Number/Title	55B40C09 Movement Regulations
Task Number(s)/ Title(s)	Introduction to Munitions Movement Regulations
Effective Date	21 August 1998
Supersedes TSP(s)	MP-14C/15C 645-55B40
TSP User	USAOMMCS, Redstone Arsenal, Alabama and accredited Ordnance TASS Battalion
Proponent	US Army Ordnance Missile and Munitions Center and School, Munitions Training Department, Redstone Arsenal, AL 35897-6970
Comments/ Recommen-dations	Send comments and recommendations directly to: US Army CASCOM Training Directorate ATTN: ATCL, AO (Mr. Roy King) Bldg. 1109, 401 First Street Fort Lee, VA. 23801-1713 (e-mail Kingr1@Lee-dns1.army.mil) DSN: 539-1129, Commercial: 804-765-1129
Foreign Disclosure Restrictions	If Allied students are scheduled to attend this class, coordination with Security Division (ATSK-AS) is required to determine if the information can be released to Allied students.

Preface

Purpose

This training support package provides the instructor with a standardized lesson plan for presenting instruction for:

LESSON TITLE:	Movement Regulations
CONDITIONS:	In a classroom environment given, Student Handout C09-H01, TM 9-1300-206, and AR 55-355.
STANDARD:	Demonstrate an understanding of the uses of the provided publications for determining compliance with movement regulations by correctly answering 4 out of 5 questions.

This TSP Contains

TABLE OF CONTENTS

(21 August 1998)

SECTION I. ADMINISTRATIVE DATA

All Courses Including this Lesson

COURSE NUMBER(S)	COURSE TITLE(S)
645-55B40	Ammunition Specialist, ANCOC

Task(s) Taught or Supported

TASK NUMBER	TASK TITLE
None	

Reinforced Task(s)

TASK NUMBER	TASK TITLE
None	

Academic Hours

The academic hours required to teach this lesson are as follows:

	ADT HOURS/METHOD
Conference	5.0 / CO
Practical Exercise	3.0 / PE2
Total hours	8.0

Test Lesson Number

	Hours	Lesson No.
Testing:	4.0 TE2	55B40C21
Review of test results:	1.0 CO	55B40C22

Prerequisite Lesson(s)

LESSON NUMBER	LESSON TITLE
55B40C01 through C08	

Clearance and Access

Unclassified - If Allied students are scheduled to attend this class, coordination with Security Division (ATSK-AS) is required to determine if the information can be released to Allied students.

References Required

Number	Title	Date	Additional Information
AR 55-355	Defense Traffic Management Regulation	July 1986	
MIL HDBK 138A	Movement Regulation	June 1993	
TM 9-1300-206	Ammunition and Explosives	August 1973	with changes 1-10

Related

None

Student Study Assignments

None

Instructor Requirements

One instructor

Additional Support Personnel Requirements

None

Equipment Required

Overhead Projector

Materials Required

INSTRUCTOR MATERIALS: References listed above. Viewgraphs 55B40C09, VG#01 - VG#23

STUDENT MATERIALS: References Listed Above. Student Handout C09-H01 and Practical Exercise Work Sheet 55B40C09-PE2,

Classroom, Training Area, and Range Requirements	One 30-person classroom
Munitions Requirements	None
Instructional Guidance	Before presenting this lesson, instructors must thoroughly prepare by studying this lesson and identified reference material.

Proponent Lesson Plan Approvals

Name	Rank	Position	Date

SECTION II. INTRODUCTION

Method of instruction: CO
Instructor-to-student ratio: 1:12
Time of instruction: 0.1 hours

Motivator

Good morning/afternoon, class. I am _____. I will be your primary instructor for this lesson. Hundreds of tons of munitions, explosives, and other dangerous materials are transported daily by air, land and sea. Rarely do you hear of a disaster resulting from a shipment of hazardous material. Since you will be involved in the handling and transporting of dangerous material, it is imperative that you have the knowledge of the regulations pertaining to the transporting of such munitions and explosives.

Terminal Learning Objective

Note: Inform the students of the following terminal learning objective requirements.

At the completion of this lesson, you (the student) will:

ACTION:	Determine compliance with movement regulations.
CONDITIONS:	In a classroom environment given, Student Handout C09-H01, TM 9-1300-206, and AR 55-355.
STANDARD:	Demonstrate an understanding of the uses of the provided publications for determining compliance with movement regulations by correctly answering 4 out of 5 questions.

Safety Requirements

None

Risk Assessment Level

Low

Environmental Considerations

None

Evaluation

On a written end of annex examination, the student must score a minimum of 70 percent to achieve a GO.

NOTE:	**Show VG01 (Title Slide).**
Instructional Lead-in	The purpose of transportation regulations and requirements is to minimize the danger to life and property, incidental to transportation of all types of explosive and dangerous articles.

SECTION III. PRESENTATION

1. Learning Step/Activity 1: Describe Code of Federal Regulations (49).

Method of instruction: CO
Instructor-to-student ratio is: 1:12
Time of instruction: 0.3 hours
Media: None

a. Bureau of Explosives (BOE) Tariff BOE 6000-series. This publication is published by the association of American Railroads and contains rules and regulations covering packaging, placarding and movement of explosive and hazardous materials. It is a reprint of Parts 171 - 180 of Title 49: Code of Federal Regulations for Hazardous Materials.

Note: Refer the students to Student Handout C09-H01, Table of Contents.

b. CFR Title 49, Transportation, is divided into subtitles, chapters and subchapters as shown on the first page of the CFR Section of Student Handout C09-HO1.

(1) The CFR is broken down further into parts, subparts, sections, and paragraphs.

(2) Parts are numbered sequentially using a 3 Digit Numbering System such as; 106, 107, 171, through 180.

(3) All sections are numbered. The first three digits of this number represents the part. The number to the right of the decimal point is the individual section number, which are numbered in sequence. Paragraphs are lettered with lower case letters or numbers.

Note: Have the students turn to part 172 of The Student Handout C09-HO1 and point out the TOC parts of the paragraph number and subparagraphs.

(4) Each part in the publication has an index for material contained in the part. The index is located on the first page of the part.

(a) Section 172.504

(b) Section 172.508 gives information on affixing placards to railcars.

Note: Have students use the table of contents to find general placard requirements for hazardous materials.

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(5) Review contents of applicable parts

Note: Have students turn to the following pages of C09-H01 and discuss contents briefly.

(a) Hazardous materials table for shipments by air, rail, highway, and water (part 172). Optional hazardous material table.

(b) Labeling hazardous materials (part 172, subpart E).

(c) Placarding hazardous material (part 172, subpart F).

(d) Classes of explosives and definitions (part 173, subpart C).

(e) Loading and storage chart, hazardous materials (rail only) (part 174, subpart C).

(f) Carriage by vessel (part 176).

(g) Loading and storage chart, hazardous materials (highway only) (part 177, subpart C).

Note: Explain to students the difference between the loading and storage charts found in parts 174 and 177 of Student Handbook (CFR 49).

QUESTION: What procedure covers preparing a railcar for a shipment of 1.1 explosives?

ANSWER: Consult table of contents and use following procedures to answer question: (1) Question pertains to railcar. Locate part for rail freight carrier (railcar is to be loaded). Reference is part 174 (Chap 3); (2) Open part 174 and locate 174.8 that covers the inspection of car (subpart A).

QUESTION: Can Class 1.1 B munitions and 1.3 C munitions be transported on the same vehicle?

ANSWER: No. IAW Tables for Segregation and Compatibility in the Student Handout.

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2. Learning Step/Activity 2: Describe the purpose, and use of AR 55-355:
Method of instruction: CO
Instructor-to-student ratio is 1:12
Time of instruction: 0.3 hours
Media: None

AR 55-355. Military Traffic Management Regulation

(1) This publication has been published as an Army Regulation, Navy Publication, Air Force Manual, Marine Corps Order, and Defense Supply Agency Regulation.

(2) Format:

(a) This regulation is composed of parts, chapters, sections, and paragraphs.

(b) Chapter 33 governs transportation of explosives and other dangerous articles by all modes of commercial transportation within CONUS.

Note: Refer students to Chapter 33.

(c) Page 78, paragraph 33-1. This is the page number where the chapter begins.

(3) Contents of chapter 33.

(a) **Section I - General.** Contains general information such as the following:

- Purpose and scope (paragraph 33-1).
- Responsibilities of military departments and transportation officer (TO) when shipping explosives and hazardous articles (paragraph 33-6).
- Labels and placards (paragraph 33-11).

(b) **Section II.** Transportation by Motor Vehicles (page 80, Shipment of class A or B munitions, explosives, or poisons and radioactive yellow II and III label materials will only be tended to):

1. Motor carriers which are on the HQMTMC list of motor carriers approved to transport class A and B munitions for the DOD and who comply with Department of Transportation (DOT) and other transportation safety regulations.

2. Local drayage carriers are complying or have filed a certificate stating they will comply with Department of Transportation safety regulations and all other applicable state and local laws and regulations (paragraph 33-15b).

3. Inspection of Vehicles. Inspection of vehicles before loading and unloading (paragraph 33-18).

4. Preparation of DD Form 626 (Motor Vehicle Inspection, paragraph 33-19).

Note: Inform students that forms required for vehicles carrying explosives will be covered in a later class.

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5. Distribution of completed DD Form 626 (paragraph 33-19c).

6. DD Form 836 (Special Instructions for Motor Vehicle Drivers) will be used by TOs to provide emergency response instructions to drivers of all commercial and military vehicles transporting explosives or certain other hazardous material (paragraph 33-20a).

Note: Explain Appendix L, page 246, and its use in preparing the DD Form 836.

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7. Sealing of motor vehicles containing explosives or dangerous articles (paragraph 33-21).

(c) **Section III.** Rail Freight Transportation (page 82).

(d) **Section V.** Exemptions (page 82).

QUESTION: What paragraph gives information on preparation of DD Form 626, Motor Vehicle Inspection?

ANSWER: Paragraph 33-19.

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3. Learning Step/Activity 3: Describe TM 9-1300-206 shipment regulations.

Method of instruction: CO
Instructor-to-student ratio: 1:12
Time of instruction: 0.4 hours
Media: None

TM 9-1300-206 Ammunition Explosives Standards. This manual outlines regulations controlling the shipping and transportation procedures of explosives and munitions.

Note: Refer students to Chapter 6, Section II, Paragraph 6-7, through 6-14. Discuss the material covered in each paragraph.

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(1) Paragraph 6-11: Gives information on shipment by rail.

(2) Paragraph 6-12: Shipment of explosives and other dangerous articles aboard vessels.

(3) Paragraph 6-13: Shipment by motor vehicles.

(4) Paragraph 6-14: Information on shipments by military aircraft and nonmilitary aircraft.

Note: Inform students that some publications still refer to munitions as Explosive A, B, C, but the true recognition is Class 1.1, 1.2, and 1.4.

QUESTION: What type railcar is required for shipment of Class A explosives?

ANSWER: Certified car (paragraph 6-11d, page 6-4).

QUESTION: What form is used for reporting when an improperly packed or marked shipment is received?

ANSWER: SF 364 (paragraph 6-11g, page 6-6).

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4. Learning Step/Activity 4: Inspect vehicle loaded with munitions.

Method of instruction: CO
Instructor-to-student ratio: 1:12
Time of instruction: 1.5 hours
Media: Viewgraphs

Note: **Display VG02 - Blank DD Form 626.**

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a. Inspection of vehicles at origin using DD Form 626.

(1) The items which must be checked prior to the release of a loaded motor vehicle at the origin are items 23 through 30 as shown. Items 24, 26, 27, and 28 are self-explanatory and are not covered on the back of the form; however, these items will be covered in this lesson.

(2) Your first concern is Item 23 of DD Form 626, The Compatibility of the Munitions.

(3) Check the compatibility; know what items have been loaded.

(a) Look these items up in the Compatibility Chart of CFR 49 Part 177. The letter "X" at an intersection of the horizontal and vertical columns shows articles that must NOT be loaded or stored together.

(b) In Item 23 on DD Form 626, write satisfactory (SAT) in the "origin" column and proceed with your inspection.

(c) If the load is not compatible, in Item 23 write unsatisfactory (UNSAT) and notify the Chief of Surveillance. If the Chief of Surveillance determines that the vehicle is too hazardous to move due to incompatibility, the condition will be corrected on the spot.

(d) If the Chief of Surveillance determines that the vehicle is not hazardous to move, the vehicle will be returned to the storage section for correction.

(e) Next, check the distribution of the load. If the load is not correct, it must be redistributed. If it is correct, in Item 25 of DD Form 626 write "SAT" in the "origin" column. (TM 9-1300-206, page 6-11, paragraph 13b(3).

(f) Check the placards. IAW CFR 49, Handout, Paragraph 172.504, the vehicle must display 4 placards, one on the front and back and one on each side.

1. Explosive 1.1 placards will be used for any quantity of Class 1.1 explosives or combination of 1.1 and 1.2 explosives.

2. Explosive 1.2 placards will be used for any quantity of Class 1.2 explosives.

Note: Refer students to Handout, paragraph 172-504.

(g) If the placards are not correct IAW Handout, then storage personnel will be notified. If they are correct, in Item 29 on DD Form 626 in the "origin" column write "SAT" and enter the type of placard used in the space following "Proper Placards Applied."

Note: Inform the students that outload drawings must be used for blocking and bracing. (DA PAM 75-5).

(h) Check that the load is secure. The load should be blocked and braced so it will not shift while being transported. If the load is secured properly, in Item 24 of DD Form 626 in the "Origin" column, write "SAT." If not sat, notify storage personnel.

(i) If you approve the loaded vehicle, a fire and water resistant tarpaulin will be applied over the munitions to protect it during the trip. In Item 26 of DD Form 626 write "SAT."

Note: Refer students to AR 55-355, paragraph 33-21, page 81.

(j) If the vehicle is a van or a closed trailer, you will apply a seal and in Item 26 of DD Form 626 write "SAT" in the "Origin" column. You must record the seal number following SEAL(s) APPLIED _____.

(k) Item 30 will be checked if the shipment is made under provision of DOT special permit number 868. Otherwise, enter "N/A" in the "origin" column. (This applies to shipments of special weapons only.)

(l) If the loaded vehicle is disapproved, the discrepancies will be reported to your supervisor. If it is approved, both you, the inspector, and the vehicle driver sign "Origin" blocks on the DD Form 626.

(m) The vehicle driver will be given a copy of the Special Instructions for Motor Vehicle Drivers, DD Form 836; then in Item 27 of DD Form 626 write "SAT."

Note: Refer students to AR 55-355, paragraph 33-19c, page 81.

(n) Next, the munitions inspector will distribute the copies of DD Form 626 as appropriate. The original copy will be kept by the activity making the inspection, and a copy will be given to the vehicle driver.

b. DD FORM 836. Special Instructions for Motor Vehicle Drivers:

(1) Look at a partially completed DD Form 626 which was prepared during the vehicle inspection. When filling out DD Form 836, you will refer to the Administrative Section of DD Form 626.

Note: **Display VG03 - Blank DD Form 836.**

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(2) Begin by entering today's date in the "Date" Block of the DD Form 836.

(3) Next, enter the carrier's name and the trailer number in the "To" block of the form. Both items are found on DD Form 626. The carrier's name is found on the first line under the "origin" column. In this example, you will enter "21st Trans GP" in the "To" block. Now, go back to DD Form 626 and locate the trailer number under the "Vehicle" section. Then enter this information, "USPS12467538" in the "To" block under "21st Trans GP."

(4) Now, fill in the from block "Installation Issuing Instructions." Once again, return to the "origin" section of the DD Form 626 and go down to the block marked" Installation/ Activity." In this case, the Installation/Activity at "origin" is "44 ORD Co., Baumholder, Ger." Make sure this information is entered in the "From" block of DD Form 836.

Note: **Display VG04 - DD Form 1348-1,** and refer students to AR 55-355, (Commodity Groups).

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(5) The information for the "Commodity Description" block may be extracted from DD Form 1348-1. The necessary description is found in the "Freight Classification Nomenclature" (Block "U") of this form. This information is very specific. Make sure you transfer all the information listed here into the "Commodity Description" block on DD Form 836.

(6) If the item is being shipped in a military vehicle, as is the case here, enter NA in the "Bill of Lading Number" block. If the shipment is by commercial vehicle, the information for this block will be found in DD Form 626 on the "GBL No" line.

(7) In order to fill out the "Type Placard Required" block you will need a copy of CFR 49 (Student Handout) and the shipping name of the item.

Note: Inform students that shipping name is the same as DOT (Department of Transportation), Commodity Group, or Classification Nomenclature.

Note: Refer students to Student Handout C09-H01, CFR 49 part 172.1, and briefly discuss the hazardous table.

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(8) Using the shipping name and Student Handout, 172.101, page 8-3, Hazardous Material Table to find the hazard class.

(9) Using the Hazard Class, turn to handout, page 8-41, paragraph 172.504, table 1 or 2 to determine the placard required.

(10) In this case, type of placard required is "Explosive 1.1." Enter this in the block, "Type Placard Required."

Note: **Display VG05 - DD Form 626.**

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(11) Continue the preparation of DD Form 836 for the shipment of Ammunition for Cannon with Explosive Projectile. The top section of the form is now complete; you will now begin to fill out the "In Case of Fire" section. Go to item 4 and check whether or not water may be used on this cargo. The use of water on fires involving munitions and explosives is found in TM 9-1300-206, paragraph 3-5b, page 3-5. If you are not dealing with the commodities mentioned in this paragraph, you would be able to use water on the fire.

Note: Refer students to TM 9-1300-206, table 3-1, page 3-11 and specify munitions on which you may not apply water.

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(12) The description of this shipment does not indicate the presence of magnesium metal and aluminum powders, pyrotechnics, chemicals, or electrical commodities, so you would be able to use water to put out a fire. Place an "X" in the "Yes" box of Item 4.

Note: Refer students to AR 55-355, page 81, paragraph 33-20C.

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(13) Items 5 and 6 require that you fill in the minimum distance (in feet) that must be maintained by fire fighters and the public from the cargo once it has been reached by the fire. This information is found in AR 55-355.

Note: Refer students to AR 55-355, Appendix L.

Note: AR 55-355, Appendix L contains specific fire fighting instructions for explosives and other dangerous items. They are listed alphabetically, and each is followed by the group to which it has been assigned. The "Freight Classification Nomenclature" block on DD Form 1348-1 will give you the name of the item to be located.

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(14) Once you have located the item and the group to which it has been assigned, you will turn to the group indicated. Here you will find the distance to be maintained from the fire. Ammunition for Canon with Explosive Projectile is assigned to Group IV, and the minimum distance for this Group is 2500 feet for firemen and 2500 feet for the public. Enter this in items 5 and 6 on DD Form 836.

(15) Move down the form to the block for "Other Specific Precautions or Instructions" and write in any special precautions listed in AR 55-355, Appendix L, for this group. For example, items in Group IV are principally missile fragment hazards, and the specific precautions would be "prepare to fight incipient fires started by the explosion."

(16) The "Additional Notification Required" block is found under the "In Case of Accident" section. Whether or not you will fill in this block is determined by local policies. If additional notification is not required, then you would enter "NA" in this block.

(17) When you are satisfied that all necessary information has been correctly filled in, sign the form in the "Signature of Shipper Representative" block and have the driver sign his name in the "1-Signature of First Driver" block.

(18) Attach the DD Form 836 to the partially completed DD Form 626 and give both forms to the driver of the vehicle.

c. Inspection at the destination using DD Form 626.

Note: Refer students to AR 55-355, paragraph 33-18b, page 81.

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(1) First, you must obtain the driver's copy of DD Form 626 that was completed at the origin and prepare the upper "DESTINATION" section of the form. Enter the name of the carrier.

(2) Next enter the name of the driver and today's date and the correct time. (Example: The name of the driver is SPC James Let, today's date is 23 June 1998, and time 1400hr)

(3) Next enter the name of YOUR INSTALLATION or ACTIVITY. If you are stationed at Fort Wainwright, Alaska, you will enter this in the block marked INSTALLATION ACTIVITY.

(4) Enter the driver's state abbreviation and permit (license) number if civilian. If military, enter SF-46 and the license number. (Always ensure that the licenses are valid for that vehicle and are not expired.)

(5) Check the medical examiner's certificate. IAW AR 55-355, paragraph 33-8, page 79, commercial drivers transporting explosives over public highways must possess a Medical Examiner's Certificate issued within the previous 24 months. Enter the date the certificate was issued in the appropriate block.

(6) In the "VEHICLE" portion of the DD 626, enter the vehicle license number and state for commercial vehicles or the "USA" number for military vehicles in the truck number block under "DESTINATION."

(7) Enter the trailer license number and state or "USA" number in the trailer(s) number block under "DESTINATION."

(8) If a commercial vehicle/trailer is multi-licensed, record the registration number(s) from the vehicle/trailer under "DESTINATION" in the truck and trailer(s) blocks.

(9) After correctly completing the upper portion of the DD Form 626, you are ready to begin your vehicle inspection. Obtain the DD Form 836, Special Instructions for Motor Vehicle Drivers, from the driver and, as you already have the DD Form 626, write a "SAT" in items 27 and 28 on the DD form 626.

Note: **Display VGO6- DD Form 626 Reverse Side.**

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(10) Review the instructions on the reverse side of the DD Form 626. All items marked with an asterisk (*) will be inspected on all incoming loaded equipment.

(11) All items found satisfactory, check "SAT" in the destination column. Any items found unsatisfactory, check "UNSAT" in the destination column and write the deficiency in either the remarks column to the right or the remarks block on the reverse side of the form.

Note: Refer students to TM 9-1300-206, paragraph 6-13b(2), page 6-11.

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(12) The first item with an asterisk (*) is item 8 (Fire Extinguisher). Assure that the fire extinguisher is the correct type and is full and serviceable. Check "SAT" or "UNSAT."

(13) Check the type of fuel being used. Inspect LPG tanks, gages, and lines for leaks. (Item 11) Inspect gasoline/ diesel tanks, lines, inlet assemblies, and cap. (Item 12)

(14) Inspect both the foot and hand brakes. (Use the same procedures as for empty motor vehicles.) (Item 14).

(15) If the vehicle has a trailer, the landing gear must be both serviceable and functional. Check "SAT" or "UNSAT" for Item 15.

(16) Tires must also be serviceable. Examine them for cuts, breaks, and blisters. Dual tires must be properly matched, and any stones must be removed from between the duals. (Item 17)

(17) The electrical wiring must be secure, clean, and not frayed. Check "SAT" or "UNSAT' on Item 19 in Destination column.

(18) Inspect tail gates on cargo vehicles and doors on vans and trailers. Check for loose or broken latches, hinges, and safety chains. Check "SAT" or "UNSAT" in Item 20.

(19) Inspect the tarpaulin. It must be fire and water resistant. Every military tarpaulin is fire and water resistant. Check "SAT" or "UNSAT" in Item 21 in the Destination column.

(20) You have just completed the inspection of the vehicle and checked Items 8, 11, 12, 14, 15, 17, 19, 20, and 21. If you have found them to be "SAT" or "UNSAT," sign your name in the SIGNATURE OF INSPECTOR DESTINATION block.

(21) Continue with your inspection; look at the items marked with an asterisk (*) at the lower portion of DD Form 626. These items must also be inspected.

Note: Inform students that if you find the items in good condition, write "SAT" in the DESTINATION column or "UNSAT" if there is a deficiency.

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(22) Inspect blocking and bracing. If it is correct, write "SAT" in Item 24. If not, write "UNSAT" in the Destination block of Item 24 and notify the Surveillance Office.

(23) If the vehicle is open, it must have a serviceable water and fire resistant tarpaulin. (Item 26)

(24) Check the seal(s) on the trailer or van door(s). If any seal number does not match the number on the DD 626 or other shipping documents, or if the seal is broken or missing, do not open the doors. Notify surveillance and the operations officer. Then await further instructions.

(25) Check the placards. Are they present and accurate? This information can be found in item 20 of the DD Form 626.

Note: Outside CONUS, Placarding differences may be encountered due to status of forces agreement and local command policies.

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(26) If the shipment had not been made under the provisions of DOT Special Permit Number 868, enter N/A in Item 30 under the "Destination" column.

(27) If the loaded vehicle is satisfactory, sign your name in the "Signature of Inspector Destination" block. If the loaded vehicle is not satisfactory, notify the operations officer and surveillance; write the reasons for disapproval in the "Remarks" section on the back of the form and then sign the "Signature of Inspector Destination" block.

Note: If the vehicle is disapproved, it will not be allowed into the munitions area. The munitions on this vehicle must be transferred onto an approved vehicle to be taken into the area.

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(28) Have the driver sign the "Signature of Driver at Destination" block regardless if the vehicle is approved or not.

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(29) Deliver the signed DD Form 626, DD Form 836, and the shipping documents to the control section.

QUESTION: Why should you prepare DD Form 836?

ANSWER: To give vehicle drivers special instructions about a shipment.

QUESTION: When completing DD Form 836, which forms should be used as source documents.

ANSWER: DD Form 626 & DD Form 1348-1. Forms A and B

QUESTION: Where do you find specific firefighting instructions for explosives and other dangerous items?

ANSWER: AR 55-355, Appendix L.

QUESTION: As a munitions inspector what should you first check to see if the Load is acceptable?

ANSWER: Item 23, Compatibility

QUESTION: What is the first item you check on the DD 626 when you start your inspection of the vehicle?

ANSWER: The Fire Extinguisher (Item 8).

QUESTION: What items must be checked on DD Form 626 prior to the release of a motor vehicle loaded with munitions at origin?

ANSWER: Items 23 through 30 of DD Form 626.

QUESTION: You are inspecting a vehicle loaded with munitions using the DD Form 626. When completing the lower portion of the form, what should be your first concern with the munitions loaded on the vehicle?

ANSWER: Item #23 - Compatibility of the munitions.

QUESTION: Which items on the DD Form 626 will be checked on incoming loaded equipment?

ANSWER: Items marked with an Asterisk (*).

QUESTION: You are inspecting an incoming motor vehicle loaded with munitions. You find some unsatisfactory conditions on the vehicle that the driver cannot correct. What action must be done in regards to the munitions?

ANSWER: Off-load the munitions onto a vehicle that is satisfactory.

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5. Learning Step/Activity 5: Describe how to inspect a MILVAN.

Method of instruction: CO
Instructor-to-student ratio: 1:12
Time of instruction: 1.0 hour
Media: Viewgraphs

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a. Inspect a MILVAN.

Note: **Display VG07 - MILVAN,** and refer students to MIL-HDBK 138A, page 3, paragraphs 3.1, 3.2, & 3.3.

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(1) The MILVAN used to carry munitions is a fabricated steel container with a mechanical load bracing system that can be adjusted to meet most load requirements. Only those MILVANS with load bracing systems can be used to transport munitions.

Note: **Display VG08 - Typical Steel Container,** and point out the major parts a the MILVAN.

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(2) The MILVAN is a box. As a box, it has six sides (front/rear/left/right/top/bottom); counting inside and outside, there are a total of twelve sides to be inspected. The end with the door is considered to be the rear; with the rear at six o'clock, towards nine o'clock is the road side, towards twelve is the front, and towards three is the curb side

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Note: Refer students to MIL-HDBK 138A, pages 70 and 71.

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(3) The inspection should follow the sequence laid out in MIL-HDBK 138A, pages 70 and 71.

(4) Any suitable method may be used to record the results of your inspection of the MILVAN, such as DA Form 2404, unless local SOP designates a particular form. MIL-HDBK 138A contains a suggested form which is shown here, and will be used in this lesson. When a defect is found which renders the MILVAN unacceptable, reject the MILVAN and stop the inspection immediately. To continue would waste valuable time. Enter the defect on your inspection report and notify maintenance personnel (IAW local procedures) for correction.

Note: **Display VG09 - Inspection Check list.** (MIL-HDBK 138A, Appendix A, pages 72 through 75.)

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(5) The container inspection criteria will be met through a visual examination and, except where tolerances are provided, acceptance of the container will be based on the judgment of the inspector. Any unacceptable deficiencies disclosed by the examination must be corrected before the container may be used for shipment.

(6) Any defect which would render the MILVAN unsafe makes it unacceptable. An unsafe condition is one which presents the possibility of damage to or loss of the cargo or the equipment, or poses a physical hazard to personnel.

Note: **Display VG10 - Markings and Data Plates.**

---

(7) Check for the appropriate markings and data plates.

Note: **Display VG11 - Consolidated Data Plate.**

---

(8) Annotate the ISO owner code serial number and the existing CSC re-inspection date on the inspection checklist.

Note: **Display VG12 - Exterior Rear Door Checks.**

---

(9) Check for any distortion, holes, or tears. Any damage or improper repair which results in failure of the doors to make the MILVAN watertight is a cause for rejection.

Note: **Display VG13 - Rain Gutter and Door Sills Check.**

---

(10) There must be no major damage to the rain gutter. Minor damage, such as that shown here, is acceptable.

(11) Check the inner side of the doors for any damage that would interfere with their serviceability.

Note: Refer students to MIL-HDBK 138A, pages 52 and 53.

---

(12) Inspect the roof bows for any that are torn loose from the top side rails. Check them for cuts and breaks.

(13) Having made sure that the doors are thoroughly serviceable, you are ready to inspect the interior of the MILVAN.

(14) Close the doors from the inside and check for the penetration of light from the exterior. (MIL-HDBK page 71, paragraph 6.4.8)

Note: **Display VG14 - Mechanical Restraint System.**

---

(15) Inspect the load bracing system. This system consists of 8 horizontal slotted rails, intermittently spaced and welded on each side wall, and 25 independent load bracing crossbeams which interlock into the side rail slots. They are shown here in position to illustrate their use. (Ref: MIL-HDBK 138, page 18, paragraph 4.4.3)

(16) Vertical slotted rails are welded to the sides of the end frame. This arrangement permits adjustment of the bracing to fit the loading requirements.

(17) Inspect the horizontal and the vertical rails for any damage to the slots that would prevent the crossbeams from locking in the slots. Then check the rails for distortion and for possible looseness. Check for faulty and/or cracked welds. Any of these defects is cause for rejection.

(18) Inspect the load bracing crossbeams to make sure that the locking mechanism is operable and that the beams are not bent, crushed, or bowed.

(19) Now, turn your attention to the floor of the MILVAN. Examine it for any curvature. This would permit shifting of even well-braced cargo.

Note: Refer students to MIL-HDBK 138A, page 35.

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(20) Check all visible portions of the corner fittings and top rails for damage and distortion. Inspect the mounting brackets for breaks and distortion.

(21) Inspect all previous repairs and welds. They should be properly made and intact. A poor, cracked, or missing weld will seriously weaken the structural strength of the MILVAN.

Note: Refer students to MIL-HDBK 138A, pages 36 and 38.

---

(22) Closely inspect any frame members that are load bearers, both horizontal and vertical.

(23) Your first step is to verify that the items loaded are those which are listed on the shipping documents.

(24) Inspect the load to ensure that it is properly braced to prevent shifting.

(25) Next, the doors must be sealed. They may or may not be locked, but they must be sealed.

(26) The placarding of the MILVAN must be checked for correctness, according to the requirements of CFR 49 Sec. 172.504.

Note: **Display VG15 - Completion of Certificate.**

---

(27) When you have checked and are satisfied that the load is authorized, properly secured, and the placarded are in place, sign the MILVAN Certificate, DD Form 2282, releasing the loaded MILVAN for shipment.

QUESTION: What is the maximum amount of splices a door header may have and still be serviceable?

ANSWER: One splice in the door header.

REF: MIL-HDBK 138A, paragraph 5.1, page 16.

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6. Learning Step/Activity 6: Describe how to inspect a railcar.

Method of instruction: CO
Instructor-to-student ratio: 1:12
Time of instruction: 1.2 hours
Media: Viewgraphs

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a. Inspect a Railcar.

Note: **Display VG16 - Railcar Inspection Report.**

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(1) The "Railcar Inspection Report" is a locally produced form that is used to record the results of an inspection. The railcar inspection must be performed before loading.

Note: The form may differ from one location to another. But the format for a particular location should be in a local standard operating procedure (SOP).

Note: **Display VG17 - Car Certificate.**

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(2) A "Car Certificate" is required by CFR 49, Part 174, Subpart E, Paragraph 174.104, regarding the shipment of hazardous materials. It is prepared by the carrier in three copies. One copy is filed by the carrier, and the other two copies are attached to the doors of the certified railcar.

Note: **Display VG18 - Railcar.**

---

(3) Inspection of interior and exterior of railcar.

(a) The interior and exterior of any railcar used to transport explosives must be inspected. The "Railcar Inspection Report" must be properly completed BEFORE loading. Record all defects on the "Railcar Inspection Report." (TM 9-1300-206, Paragraph 6-11 f.(1), page 6-6.)

(b) The first step, after the car is received from the carrier, is to verify that the "Car Certificate" is attached to both doors of the car and that Certification Number 1 is signed. If it is not present or signed, reject the car if it is to be used to move Class A munitions. Record the results under the "UNSAT" column on your report. Only railcars used to transport Class A explosives require the "Car Certificate." (TM 9-1300-206, Paragraph 6-11 d, page 6-4)

(c) Using the information on the chart, determine which document/placard, if any, should be on a railcar used to transport Class A munitions.

(d) Placards are NOT posted on empty railcars, but when the car is being loaded, the correct placard for the munitions being shipped should be posted on both sides and both ends of each car in the space provided. For example, if the car is to be loaded with Class A munitions, this placard would be displayed. (CFR 49, Paragraph 174.59)

(e) Now, inspect the hand brake system for proper operation, excessive oil, and grease. Apply the brakes and release them. Reapply the brakes. You must determine that the brakes lock the wheels in place. If excessive oil or grease is present, it must be removed before the car can be used. Record defects in the space provided on the "Railcar Inspection Report." (CFR 49, Paragraph 174.104)(b)1)

Note: **Display VG19 - Inspect Railcar Interior.**

---

(4) Inspect the Interior of a Railcar.

(a) Now, begin the inspection of the railcar interior. Make sure that the interior of the car is "broom" clean. Is the car pictured ready to load? Report the conditions on the "Railcar Inspection Report." (TM 9-1300-206, Par 6-11b. or CFR 49, paragraph 174-104, (6))

(b) If the railcar has metal floor plates, they must be covered with wood or fiber to prevent contact between the floor plates and explosive packages. This safety hazard, if it exists, should be made a matter of record. Make a "SAT" or "UNSAT" entry on the inspection report. (CFR 49, paragraph 174.104 b.(8))

(c) Another inspection point of the railcar interior is to look for loose boards; they must be repaired before the car can be used. Report UNSAFE conditions on the inspection report, mark the "UNSAT" column, and write what you found wrong in the "REMARK" column. (CFR 49, paragraph 174.104)

(d) Inspect the railcar floor for decay. Report any decay on the inspection report. Decayed wood will hold sparks that may result in a fire. Decay would be recorded as an unsatisfactory condition. (CFR 49, paragraph 174.104)

(e) Next, inspect the car interior for cracks or holes in the roof, sides, or ends. If these conditions exist, record them on the "Railcar Inspection Report" in the "UNSAT" column. (CFR 49, paragraph 174.104b(2))

(f) The last interior inspection point is to inspect for nails, bolts, or any protruding object that could damage the munitions containers. If these conditions exist, record them as "UNSAT" on the "Railcar Inspection Report." (CFR 49, Paragraph 174.104b(7))

(g) Now, inspect the roof and the running board. Any condition, such as decay, that could cause a fire must be reported on your "Railcar Inspection Report" as an "UNSAT" condition and the defect must be corrected or the car must be rejected. (CFR 49, Paragraph 174.104b(3))

Note: Perform this inspection if the car roof is made of wood.

(h) During the inspection of the roof of the railcar, look for a generally decayed roof. If this condition exists, even though the roof is watertight, reject the car.. (CFR 49, Paragraph 174.104b(3))

(i) Now, inspect the doors of the car. Open the doors. The doors must operate freely and open all the way. Record the results of this inspection point on the "Railcar Inspection Report." If the doors do not operate properly, it is an "UNSAT" condition and the doors must be repaired or the car must be rejected. (CFR 49, Paragraph 174.104.b(4))

(j) Close the doors; they should close tightly. If they do not close tightly, stripping will be required. If the doors close tightly, no stripping is required. Enter "SAT" on the inspection report. If the doors do not close tightly and stripping is required, enter "UNSAT" on the inspection report. The railcar cannot be used until the stripping is installed. (CFR 49, paragraph 174.104b(4))

(k) While the doors are closed, inspect the door fasteners; they should be fully operational so that the car can be secured. If the doors cannot be secured, it is an "UNSAT" condition. (CFR 49, paragraph 174.104b(4))

(l) Next, inspect the journal box covers. The carrier representative certified that they were properly packed, oiled, and covered. Ensure that they are tightly closed. If the springs do not hold the cover in the closed position, it is recorded as "UNSAT" on the inspection report. (CFR 49, paragraph 174.04b(5))

Note: **Display VG20 - Inspect Hand Brake Mechanism.**

(m) You inspected the hand brake mechanism earlier. Now inspect for contact between the brake pad and the wheel. If the brakes will not set, record this condition on your inspection report, and REJECT the railcar. This condition would end your inspection. (TM 9-1300-206, Paragraph 6-11b, page 6-4.)

Note: **Display VG21 - Wheels Chocked.**

(n) Verify that the wheels are chocked; this further ensures that the car will not move accidentally. Record verification on the "Railcar Inspection Report." (TM 9-1300-206, Paragraph 6-11b, page 6-4.)

Note: **Display VG22 - Blue Flags.**

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(5) Additional Requirements.

(a) Blue flags or signals must be placed at both ends of a car or "cut" of cars. The blue flags or signals visually alert personnel that work is being performed in, on, under, or around the car or cars. If flags or signals are not present, record this safety violation on the inspection report. (TM 9-1300- 206, Paragraph 6-11b, page 6-4)

(b) The category "Other" on your inspection report reminds you that if unsafe conditions exist but are not listed on the check list, they should also be noted. In this picture, for example, you see scrap lumber and used strapping in the area. This condition will be entered as "UNSAT" in the "Other" section. If the condition is corrected on the spot, note in the "REMARKS" section that the unsatisfactory condition has been corrected. (Railcar Inspection Report)

(c) Evaluate your inspection results. Decide from the entries you made on the inspection report, including remarks and components, whether or not the car meets the standards for loading munitions. If all unsatisfactory conditions have been corrected, the car may be released for loading. Your signature as munitions inspector on the form will allow the car to be used or rejected. (Railcar Inspection Report)

Note: **Display VG23 - Complete Certification 2 and 3.**

---

b. Inspection of railcar loaded with munitions.

(1) You have now finished an inspection of the empty railcar that will be used to transport munitions. Now you will learn to inspect a loaded railcar and complete Certifications No. 2 and No. 3 of the "Car Certificate." (CFR 49, paragraph 174.104(F).

(2) The first thing you inspect for is even distribution of the load. The load pictured is unevenly distributed. Notify the Storage Officer or NCO of this condition to have the loading deficiency corrected.

(3) DARCOM Drawing 4115 5PA 1002 is used as a guide for blocking and bracing in box cars of boxed munitions and munitions on pallets unitized with strapping. (TM 9-1300-206, Figure 6-1, Page 6-5.)

(4) Improper blocking and bracing may allow the load to shift. A shifting load may result in an explosion.

(5) Next, make sure the "EXPLOSIVES" placards are attached to the railcar on both ends and on both sides of the car, the brakes are set, and the wheels are chocked. (TM 9-1300-206, paragraph 6-11b, page 6-4)

(6) Remember, you will find the Segregation and Separation chart of Hazardous Materials, in the Handout. (CFR 49, paragraph 174.81).

Note: Refer students to Handout C09-H01, CFR 49, paragraph 174.81 and discuss the footnotes and instructions for the segregation and separation chart of hazardous materials.

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(7) You will also be required to verify compatibility of different munitions that are being shipped. By comparing the items being shipped with this chart, you will be able to verify compatibility. If the items being shipped are NOT compatible, DO NOT SIGN Car Certification No. 2; notify the control section.

(8) Your inspection is now complete, but before the railcar can be closed, a railway employee must inspect the load blocking and bracing, ensure that required placards have been applied, and that the doors close tightly or have been stripped. The railway employee will then sign Certification No. 2 for the carrier, and you will sign for the shipper.

(9) BEFORE SEALING THE CAR, RECORD THE SERIAL NUMBERS OF THE SEALS ON THE GOVERNMENT BILL OF LADING. Place all documents pertaining to the munitions shipment inside a manila envelope, and attach the envelope inside the railcar. (CFR 49, paragraph 174.114, & AR 55-355, paragraph 33-29, page 82.)

(10) Now, seal the railcar and notify the Chief Inspector that the car can be released to the carrier for shipment.

QUESTION: What must be performed on a railcar before it can be used to transport munitions?

ANSWER: It must be inspected.

QUESTION: What publication gives requirements for a “Car Certificate”?

ANSWER: CFR 49.

QUESTION: What must be done to a railcar that has a metal floor/plates, before it can be loaded with munitions?

ANSWER: It must be covered with wood or fiber.

QUESTION: During your inspecting of a railcar, what are you looking for that would make the railcar unsat?

ANSWER: Loose boards; decayed wood; cracks; holes in the sides, end, or roof; and nails and bolts protruding.

QUESTION: What is required if the railcar doors do not close tightly?

ANSWER: Stripping is required.

QUESTION: You are inspecting the brakes on a railcar and find the brake will not set. What will you do with the railcar?

ANSWER: Reject the railcar.

QUESTION: Where on your inspection report would you record any deficiencies that you uncovered that were not listed on the form?

ANSWER: In the remarks block.

QUESTION: Before sealing the railcar, where would you record the serial number of the seal?

ANSWER: On the Government Bill of Lading (GBL).

QUESTION: What would you use to ensure the load in a railcar is properly blocked and braced?

ANSWER: Drawings.

7. Learning Step/Activity 7: Perform practical exercise on movement regulations.

Method of instruction: PE2
Instructor-to-student ratio: 1:12
Time of instruction: 3.0 hours
Media: None

Special Instructions

a. Directions to Instructor:

(1) Ensure each student has a copy of the Practical Exercise Worksheet 55B40C09-PE2.

(2) Inform students of directions listed below.

(3) Provide assistance as required.

(4) Critique the exercise upon conclusion.

b. Directions to Students:

(1) The purpose of this practical exercise is for you to demonstrate how well you have retained the material we have covered in this lesson.

(2) Talking between students is not allowed during the practical exercise.

(3) Raise your hand for assistance, if needed.

(4) Using the reference material provided answer the questions and cite the reference where you found the answer.

(5) You have 150 minutes to complete this Practical Exercise.

SECTION IV. SUMMARY

Method of instruction: CO
Instructor-to-student ratio: 1:12
Time of instruction: 0.3 hours

Review/ Summarize Lesson

During this lesson we have discussed the following Movement Regulations pertaining to transportation: CFR 49, TM 9-1300-206, AR 55-355, and Mil-HDBK-138A.

Check on Learning

Determine if students have learned the material presented by:

a. Soliciting student questions and explanations.

b. Asking questions and getting answers from the students.

c. Correcting student misunderstandings.

Transition to Next Lesson

None

SECTION V. STUDENT EVALUATION

Testing Requirements	Upon completion of this annex, your performance will be evaluated by an End-of-Annex examination.
Feedback Requirement	a. Schedule and provide feedback on the evaluation and any information to help answer students' questions about the test. b. Provide remedial training as needed.
Note:	Rapid, immediate feedback is essential to effective learning.

Practical Exercise Work Sheet

NAME **RANK** **CLASS** **DATE**

1. Is it permissible to stow compatibility groups C and D in the same compartment aboard a vessel ?

ANSWER: _____

_____

REFERENCE: _____

2. Who is responsible for observance of DOT and local regulations when munitions or explosives are shipped by government operated vehicles?

ANSWER: _____

_____

REFERENCE: _____

3. What is the label required when shipping “Mines with bursting charge, UNO # 0136 “?

ANSWER: _____

_____

REFERENCE: _____

4. Under what circumstances is it permissible to transport munitions in a motor vehicle without explosive placards ?

ANSWER: _____

_____

REFERENCE: _____

5. What is the Hazard Class/Division, and compatibility group for NSN 1315-00-028-4816 and 1340-00-676-7862, and are they compatible when loaded onboard a vessel ?

ANSWER: _____

_____

REFERENCE: _____

6. When performing a railcar inspection, what type of seals are acceptable for securing outside doors ?

ANSWER: _____

_____

REFERENCE: _____

7. When determining compatibility for transport of munitions by highway, what does the note "2" indicate when using the truck compatibility table ?

ANSWER: _____

_____

REFERENCE: _____

8. What is the label required for Flexible Linear Shaped Charged, UNO 0288 ?

ANSWER: _____

_____

REFERENCE: _____

9. How close may firemen approach a burning vehicle containing black powder (bulk)?

ANSWER: _____

_____

REFERENCE: _____

10. Which form should be used to provide drivers of explosive laden vehicles with fire fighting instructions?

ANSWER: _____

_____

REFERENCE: _____

11. If a truck load of Class "1.1" Explosives (EXPLOSIVE A) will be delayed for more than 12 hours, what action must be initiated by the driver?

ANSWER: _____

_____

REFERENCE: _____

12. What form is used to report a damaged shipment due to rough handling and/or improper blocking and bracing?

ANSWER: _____

_____

REFERENCE: _____

13. When trucks are loaded and are ready for movement, the driver will be furnished with what form?

ANSWER: _____

_____

REFERENCE: _____

14. When transporting munitions, what type of discrepancy is reported using SF 364?

ANSWER: _____

_____

REFERENCE: _____

15. When a military vehicle transporting EXPLOSIVE 1.1 or 1.2 (A or B) will be on the road for more than ten continuous hours, how many qualified drivers must accompany the vehicle?

ANSWER: _____

_____

REFERENCE: _____

16. What publication gives instructions on packaging and handling hazardous material by air?

ANSWER: _____

_____

REFERENCE: _____

17. Under which part and subpart of Handout CFR 49 will information about LABELING be found ?

ANSWER: _____

_____

REFERENCE: _____

18. Is it permissible to transport Primers, cap UNO 0377 on cargo aircraft ?

ANSWER: _____

_____

REFERENCE: _____

19. When transporting 1.1 and 1.2 munitions on a railcar, what are the special placarding background requirements for the shipment ?

ANSWER: _____

_____

REFERENCE: _____

20. Is it permissible to load Compatibility groups C, D, and E on the same vehicle for transport over public highways ?

ANSWER: _____

_____

REFERENCE: _____

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PRACTICAL EXERCISE SOLUTION KEY

1. Answer: YES
   Reference: CFR Sec 176.145.

2. Answer: The commanding officer, shipping officer, or shipper.
   Reference: TM 9-1300-206, paragraph 6-13a (4), page 6-10.

3. Answer: EXPLOSIVE "1.1F"
   Reference: CFR Sec 172.101 (Mines with bursting charge)

4. Answer:
   a. A vehicle is escorted by a representative of a state or local government.
   b. The carrier has permission from the department.
   c. Movement of the transport vehicle is necessary to protect life or property.

   Reference: CFR Sec 172.823.

5. Answer: 1315-00-028-4816 UNO 0321, (12)1.2 E
   1340-00-676-7862 UNO 0182 (12)1.2 E
   Yes, They are compatible.
   Reference: CFR 176.144 (a).

6. Answer: Cable Seal locks, wire twists, or other locking devices required by sponsoring military services.
   Reference: AR 55-355, 33-29 (page 82)

7. Answer: "2" means any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.
   Reference: CFR Sec 177.848, (g) (3),(ii).

8. Answer: EXPLOSIVE 1.1D label.
   Reference: CFR 172.101 Hazardous materials table, Charges, shaped, flexible linear

9. Answer: 2,500 feet.
   Reference: AR 55-355, Appendix L, page 249, paragraph L-6.

10. Answer: DD Form 836.
Reference: AR 55-355, Appendix L, page 246, paragraph L-1.

11. Answer: Must notify consignor and consignee.
Reference: AR 55-355, paragraph 33-22b, page 81.

12. Answer: SF 361.
Reference: TM 9-1300-206, paragraph 6-11, page 6-6.

13. Answer: DD Form 836 (Special Instructions for Motor Vehicle Drivers).
Reference: TM 9-1300-206, Page 6-10 Paragraph 5.

14. Answer: Damaged shipments due to improperly packed shipments.
Reference: TM 9-1300-206, Paragraph 6-11, Page 6-6.

15. Answer: Two.
Reference: TM 9-1300-206, paragraph 6-13b (21), page 6-14.

16. Answer: TM 38-250.
Reference: TM 9-1300-206, paragraph 6-14, page 6-15.

17. Answer: Part 172, subpart E.
Reference: CFR 49, 172.400.

18. Answer: No. Spontaneously combustible.
Reference: CFR 172.101, Hazardous Materials Table.

19. Answer: A square background is required.
Reference: Handout, CFR Subpart F, paragraph 172.510.

20. Answer: Yes.
Reference: CFR 49, 177.848 subpart C iii