

Armed Forces Pest Management Board

Technical Information Memorandum No. 31

CONTINGENCY RETROGRADE WASHDOWNS:

Cleaning and Inspection Procedures

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DISCLAIMER

Any mention of specific proprietary products regarding washing equipment or safety items does not constitute a recommendation or an endorsement of these products by the Department of Defense. Neither should the absence of an item necessarily be interpreted as DoD disapproval. Information or inquiries concerning any equipment or safety items should be sent through Command Pest Management Professionals or Applied Biologists to the Armed Forces Pest Management Board Quarantine Committee for evaluation.

FOREWORD

This TIM was prepared in response to inquiries regarding quarantine and customs procedures as related to the military, both with ship and aircraft movements of cargo from overseas to CONUS. This memorandum is not a regulation, but provides guidance to those individuals responsible for recommending or conducting washdowns in response to the USDA agricultural and public health inspections that are required for incoming ships, aircraft, and equipment resuming from overseas. This TIM will receive periodic review and will be updated to insure that information presented reflects current rules and regulations. Individuals using this TIM are encouraged to submit comments and suggestions for improvement. Comments should be directed to the Executive Director, Armed Forces Pest Management Board, Waiter Reed Army Medical Center, Forest Glen Section, Washington, DC 20307-5001; (301) 427-5191; FAX 291-5045.

INTRODUCTION

Purpose: The purpose of operational washdowns is to prevent the introduction of foreign agricultural and public health threats into the continental United States (CONUS). This technical Information Memorandum (TIM)

provides guidance on operational washdowns including standardized inspection and cleaning procedures for the Army, Navy, Air Force and Marine Corps.

Background Information:

1. Washdowns to prevent the introduction of exotic pests into the continental United States is an old concept. DoD Instruction 4500.35, which was primarily initiated to answer problems stemming from the Vietnam War, recommended establishing principal logistic processing centers within the Republic of Vietnam at Da Nang, Qui Nhon, Cam Ranh Bay, and Saigon-Newport to process all sea and air retrograde material.
2. More recently, washdowns in the aftermath of Desert Storm occurred at ports in Saudi Arabia, Israel, and Spain.
3. World-wide, through the World Health Organization, public health restrictions and prohibitions have long been established (reference O). These regulations protect against the introduction of foreign and potentially dangerous, animals or disease organisms.

Current Information:

1. U.S. military forces may be required to deploy virtually anywhere in the world. Associated with this deployment requirement is a great potential for forces to inadvertently introduce exotic plants and animal pests when they redeploy back to CONUS. Such introduced exotic pests can cause irreparable damage to public health, agriculture, or the environment.
2. Special precautions are necessary to prevent the introduction of harmful public health or agricultural agents from entering the United States on military equipment. The combined service instruction (SECNAVINST 6250.2/ AR 40-12/ AFR 161-4) describes Department of Defense (DoD) support for the U.S. Public Health Service (PHS) and the USDA to prevent such introductions. These references prohibit backloading of vehicles and cargo in a foreign country unless free of animal, pest, and soil contamination. DoD 5030.49-R gives customs inspection guidelines for DoD. Its last publication was May, 1977, but a draft was nearing approval at the time of this TIM 31 printing. AFR 75-12 provides additional Air Force guidelines for air transportable retrograde cargo.
3. Specifically for the United States, the Plant Pest Act prohibits the introduction of any animal, plant or material that is considered harmful to this country's agriculture. The U.S. Department of Agriculture (USDA), Plant Protection and Quarantine Division, is the enforcement authority for this Act.

PEST DESCRIPTIONS

Exotic Pest Introduction: Plant debris, garbage, food, soil, and even fresh water from foreign countries can harbor a multitude of organisms that are of quarantine importance. Insects, insect eggs, nematodes, and animal pathogens as well as many fungal, viral, and bacterial pathogens can be carried in such media. These organisms, if allowed to enter CONUS, could proliferate to catastrophic proportions unhindered by natural enemies. Accordingly, the concern by USDA inspectors about small quantities of any type material from a foreign country is understandable. Therefore, removal of all soil and other debris from vehicles is essential. All soil from outside CONUS is prohibited, including soil from U.S. territories. Current USDA inspection standards tolerate only a thin film of road dust on vehicles and equipment at the port of entry in CONUS.

Military Importance: The possible military importation of unwanted animals, such as snakes, insects, snails, and various crustaceans that are present in most of the world-wide areas frequented by the DoD is a primary

concern of the USDA.

1. In Eurasia, specifically the Mediterranean area, several species of land snails, which vary in size from microscopic to an inch or more in width, are important agriculturally. The snails normally live on the ground and feed on vegetation. During periods of high temperature, and/or low relative humidity, the snails move away from the ground, attaching and sealing themselves to objects, including military equipment. This phenomenon, called estivation, may occur year round. Vehicles and equipment found infested with snails at the final port of entry inspection may have to undergo time consuming and costly fumigation if snails are found.
2. Snakes in the Asian area, including several species of cobra and the brown tree snake, commonly seek shelter and food around CONEX boxes, shipping crates and pallets. Once aboard naval vessels or aircraft, their ability to go without food and to hibernate in cool places may allow them to survive a voyage or flight to CONUS undetected.
3. There is potential to introduce the vectors of human and or animal disease. For example, mosquito-egg-laden commercial tires were responsible for the introduction of *Aedes albopictus*, a potential Dengue fever vector, into CONUS. Commercial tire importers left tires outside prior to transport and where they collected rain water, becoming ideal sites for mosquito breeding. The eggs, capable of withstanding droughts, were transported to CONUS in the holds of a ship, and were later exposed to more rain, causing the eggs to hatch and develop.
4. Due to potential infestations both within CONUS and overseas, thorough operational washdowns of DoD resources are necessary not only prior to departing from or returning to CONUS, but also between overseas locations (i.e., between South Korea and Okinawa during "Team Spirit" exercises).

WASHDOWN LOCATION

A. A washdown location requires specific physical facilities for effective cleaning and inspection. [Appendix A](#) outlines the criteria for selecting and equipping a washdown location. In addition, an experienced military inspector familiar with USDA requirements and previous operational washdowns should be consulted and included on the early reconnaissance trips to washdown locations. Care should be taken to consider the potential adverse impact of the wash operation and to minimize effects of used water and contaminants on the local environment. See DoD Directive 6050.16 and its the Overseas Environmental Baseline Guidance Document for further details.

B. Host Nation Requirements. Every effort should be made to comply with host nation laws and regulations related to washdown operations. Coordination with local quarantine and health officials is important to maintaining a good relationship with the host nation.

OPERATIONAL WASHDOWN EQUIPMENT

[Appendix B](#) lists the major items recommended for a successful washdown. This list would need modification based on the size and location of the washdown, and available foreign national assistance. Reforger Redeployment Assembly Area has in-depth information on the best type of washracks and "bird baths" for use on wheeled and tracked-vehicles; time schedules for pre-inspecting, cleaning, and processing various types of equipment; and a staging area checklist.

INSPECTION AND CLEANING PROCEDURES

The inspectors must maintain strict and non-compromising decisions. Personnel involved in an operational washdown must follow [Appendix C](#) guidelines in order to expedite reentry approval into CONUS by USDA and USPHS officials.

A. Inspectors: The military inspectors (cooperators) will vary depending on the branch of service.

1. All military inspectors, also called USDA Military Cooperators, serve at the discretion of the USDA.

2. Preventive Medicine Technicians from the Navy Medical Department are currently certified through the Bureau of Medicine and Surgery Instruction (BUMEDINST) 6250.12 aeries, have served as inspectors with appropriate on-the-job training in an actual operational washdown inspection, normally in cooperation with a Navy entomologist.

3. The Air Force Chief of Transportation at the respective overseas base is responsible for overall inspection criteria and approval per AFR 75-12, involving Air Force equipment and cargo coming into CONUS. A combined instruction, OPNAVINST 3710.2E / AFR 8-5, was developed by the Air Force and adopted by the Navy as a guide in clearing equipment from a foreign port destined for CONUS.

4. Military customs inspectors with the Army have jurisdiction over all customs and operational washdown inspections in their area of responsibility. U.S. European Command (USEUCOM) Directive 30-3 is used in the European theater as the standard inspection guideline. [Appendix D](#) shows a typical staging and processing flow chart for an operational washdown.

5. Army Fifth Preventive Medicine Detachment provides inspection support for deployments (i.e. Reforger, Team Spirit) involving Korea. Some 8 or 10 inspection sites are served.

B. Administrative requirements: Necessary administrative requirements will be established by the military inspectors for the USDA's review and final inspection at the point of entry.

1. Tags attached to each vehicle after cleaning are appropriate for marking vehicles. Cleaning needs to be done on personal gear and removable items as noted in [Appendix C](#). A sample of a vehicle tag is shown in [Appendix E](#).

2. An Inspection log should also be kept to track the number of vehicles and to insure a double check for the tagged vehicles. A sample format for the log is shown in [Appendix F](#).

RESPONSIBILITIES

In any operational washdown, certain agencies or individuals must assume the many responsibilities that will occur. The following categorized responsibilities provide a structured inundation for comparison within each specific service.

A. DoD: Headquarters, Department of Army (DALO-TSP) is the DoD Executive Agent for the Military Customs Inspection Program (MCIP) . Under the supervisor of the U.S. Customs Service (USCS) and the USDA the MCIP conducts preclearance inspections for customs hr personnel and materiel leaving the overseas theater. Overseas Unified Commanders are responsible for compliance with DoD Directive 4500.9 (establishes

guidelines for processing and shipping DoD sponsored retrograde materiel), and DoD 5030.49-R (establishes policies and procedures under which USCS and USDA authorize military custom inspectors to inspect materiel and personnel resuming to U.S. customs territory).

B. Headquarters, or Highest Operational Command: Requests to this command should be made when lower echelon commands need upgraded manpower requirements for inspection teams, because teams cannot be acquired through internal resources.

C. Major Echelon Involved:

1. The major echelon will probably be stationary within CONUS or its main base. However, coordination on operational washdowns will generally occur at this level, including needed technical advice on all matters pertaining to the operational washdowns.
2. Deploying units could request a detailed brief on how to conduct the operational washdown from this organizational level. Sufficient resources at this level would include applicable references and the senior inspector's support requirements (equipment, personnel augmentation, subject expert support).
3. Requests to the senior inspector for other inspection team members can be made regarding appropriate USDA quarantine compliance requirements for clearing retrograde cargo.
4. This level of command will probably be budgeting for, and providing funds for the TDY/TAD of inspection teams to operational washdowns for contingency and training exercises.
5. The senior inspector of this command level usually has the final authority in the operational washdown for certifying pest-free vehicles, equipment, and supplies during operational washdowns. Some exceptions do exist as follows:
 - a. Ship or aircraft commanders in the case of mission requirements and operational necessity may be forced to proceed to CONUS with a partial certification.
 - b. If only a partial certification is provided, the senior inspector will notify the appropriate USDA-APHIS Officer in Charge, with copies to interacting commands as deemed necessary. The notification generally details the extent of the certified material and specifies whether or not it is segregated from uncertified equipment and supplies.
 - c. In the case of notification on a partial certification, appropriate commands should assist the incoming activity to prepare for the reception of embarked equipment by the USDA upon its arrival in CONUS.

D. Commander or On-Site Deployed Command with Overall Authority:

1. The on-site deployed command should have an interest in scheduling USDA official coordination and briefing of members actually involved in the deployment and consequent washdown.
2. Where washdown facilities are not fully adequate at the proposed, final overseas backloading port, base, or airport, the deployed command will need to coordinate with in-country contacts or liaison agencies to delineate shortfalls and determine suitable solutions. Additional coordination may be required to negotiate through host nation support agreements as in the case of needing adequate fresh water washdown facilities at a final overseas backloading port or site.

E. Commander, Specific Deployed Units On-Site:

1. This on-site unit will be able to determine the scope and extent of operational washdowns needed, based on the amount of equipment and supplies that need washing and inspecting. Since this unit will be doing the

operational washdown, then additional briefings with the senior inspector, USDA officials, and the appropriate staff members should be followed up, particularly if previous briefings have not been accomplished by the higher echelon command.

2. By utilizing pertinent guidance given in [Appendix A](#), and working with staff personnel, this unit could formulate a comprehensive plan for the operational washdown.

3. Washdown equipment in [Appendix B](#) will be used by unit personnel. The unit should make sure the equipment is available for use.

4. The inspection and cleaning procedures outlined in [Appendix C](#) will be utilized by personnel from this unit level; and therefore, becomes an important consideration for review prior to the washdown period.

5. By working with the respective departments, appropriate personnel at this level can determine the equipment and supplies, by location, that were not exposed to foreign soil contamination and which will not be off-loaded for the operational washdown. These items should be listed and certified free of contamination in writing to the senior inspector.

6. Potential contamination problems when backloading equipment, supplies, and vehicles from previous operations ashore are best considered at this level of command.

7. The senior inspector will need personnel and equipment requirements to include additional inspectors, required vehicles, radio operators, and radios for the operational washdown. The deployed unit on-site will be expected to assist the senior inspector in these needs.

SUMMARY

Information in this TIM is intended to serve as minimum guidance for conducting operational washes for regulatory control of pests. Consult with USDA quarantine officials and the Armed Forces Pest Management Board to identify recent changes in Quarantine Requirements and new developments regarding techniques before proceeding with predeployment briefings.

REFERENCES

AFR 78-12, Border Clearance, Customs Program, and Other United States Entry Requirements and Related Areas, Aug 78.

AFR 400-21, Retrograde Materiel Preclearance Program, 15 Jun 72.

UMEDINST 6250.12A, Vector Control Certification for Medical Department Personnel, 9 Nov 1978.

DoD Instruction 4500.54 G, DoD Foreign Clearance Guide, Jun 92.

DoD Directive 4500.9, Transportation and Traffic Management, 26 Jan 89.

DoD 5030.49-R, Customs Inspection, (in revision).

DoD Directive 6050.16, DoD Policy for Establishing and Implementing Environmental Standards at Overseas Locations, 20 Sep 91.

Marine Forces Atlantic Order 6210.1B/ COMNAVSURFLANTINST 6250.2B/ LANTDIVINST 6260.7B, Agricultural Washdown Operations, 17 Aug 81.

NAVMED P-5010-8, Navy Preventive Medicine, Chapter 8, Insect and Rodent Control, Sep 87.

OPNAVINST 37102E/ AFR 8-5, Foreign Clearance Procedures for U.S. Aircraft, 6 Apr 84.

Public Law 85-36, Plant Pest Act, 23 May 57.

Reforger '91 Redeployment Assembly Area Handbook, 213 Area Support Group, Sep/Oct.

SECNAVINST 6210~2A/ AR 40-12/ AFR 1614, Medical Service Quarantine Regulations of the Armed Forces, 24 Jan 92.

USEUCOM Directive 30-3, Military Customs Inspection Program, 12 Aug 87, with Change No.10f 2, Sep 89.

World Health Organization, Geneva, International Medical Guide for Ships, 1967.

APPENDIX A. CRITERIA FOR SELECTING AND EQUIPPING A WASHDOWN LOCATION

I. Location Criteria

A. Hardstand:

1. The availability of hardstand is one of the major limiting factors in how long an operational washdown takes. Hardstand is defined as a hard surface that, even when wet, will not allow any soil to transfer to the tires of clean vehicles. Areas where hardstand is absolutely essential are:

areas associated with the actual washing of vehicles,

areas used for off-loading and cleaning the vehicle accessory items,

staging areas for clean vehicles awaiting backload, and

all roads in between the above areas.

a. In reviewing the hardstand area, consider the run-off of wash water into marine environments. Also, any fuel or other contaminants from the vehicles being washed may go directly into such an environment, causing harm to shellfish or other marine life.

b. Evaluate the need for berms or other containment strategies, and the possibility of re-utilizing the water.

2. The amount of hardstand required will vary with the number of vehicles and the amount of time available. However, the following minimum criteria is required so as not to impede traffic flow during an operational washdown using a six vehicle capacity washrack:

- a. Have a washdown area of at least 40 meters on either end of the washrack assembly and 15 meters on either side.
- b. Have the charting and staging area for accessory vehicle items and palletized supplies at least 25 meters wide and 100 meters long.
- c. The size required for the clean vehicle staging will vary with how soon the backload can begin. If the vehicle/cargo decks on board the ships or aircraft must be cleaned before backload can proceed, then establish a staging area capable of holding a larger number of vehicles. Ensure that the vehicles do not become re-contaminated during the backload.

B. Fresh Water Availability:

1. Large quantities of fresh water (SALT WATER WILL CORRODE VEHICLES) are consumed in a relatively short period of time during washdown operations. Approximately 250,000 gallons are required for an average Army battalion or Marine Expeditionary Unit size force with 300 wheeled vehicles using 2 1/2 inch fire hoses operating at the minimum recommended pressure of 90 psi.
2. In many areas only gray water is available. Gray water is defined as non-saline, but with a number of contaminants from prior use. Though not used for sewage purposes, the storage of this water and the absence of chlorine makes it a potential disease carrier for those in close contact with it during the washing operations. Basic immunizations are needed.
3. In addition to the amount of water available, investigate the adequacy of the water pressure.

C. Weather Conditions: Adverse weather conditions may delay or interrupt an operational washdown. Health and safety of the work crews during operational washdowns scheduled in areas where cold or even cool weather might be encountered is a significant concern. Consult a physician familiar with cold weather medicine before a washdown is scheduled in areas where the effective temperature (including wind chill factors) might be below 45 F. The length of time these work crews are exposed to cold and freezing water is an additional factor that must be considered.

II. Heavy Equipment Selection

A. The following equipment is considered essential to the success of an operational washdown.

1. **Washracks:** The design and number of washracks will largely determine the speed at which the operational washdown can be conducted.
 - a. Design the washracks for safety, placing vehicles on and off the rack, and ease of work for the cleaning personnel. Adequate working clearance between the bottom of the vehicle and the ground is essential because the undercarriage of each vehicle is washed, inspected, and if necessary, rewashed and reinspected before being allowed off the washrack. If the vehicle is too close to the ground, the efficiency of the work crews and the inspection/rewash process would be greatly hampered, considerably extending the time required for the washdown.
 - b. The number of washracks required will vary with the amount of time available. Historically, the operational washdown proceeds at an average rate of one vehicle per individual washrack per half hour of daylight.
 - c. A person should be designated to guide the vehicles up and down the washracks to maintain a high safety margin.

2. Water Pumps: The design, output and reliability of the pumps can effect the speed of a washdown operation.

a. Provide a minimum of two hose lines for each individual washrack. The pumps should be capable of sustaining a minimum output pressure of 90 psi for many hours of continuous use.

b. Fire Department pumper trucks will work well and are usually available at any seaport, airport, or military base. Several hose lines with 90 psi outputs can be routinely operated off a single truck.

c. A supply of new hoses should be kept in reserve for use during the washdown in the event of ruptures.

APPENDIX B. OPERATIONAL WASHDOWN EQUIPMENT

1. Prior planning is necessary to determine requirements. Appropriate support will need to be requested well in advance when working overseas. Coordination and assistance will be required from the host facility/nation. The following guidelines can be used for operational washdowns with an average Marine Expeditionary Unit, Army Regiment, or Air Force Squadron as follows:

Floodlight set	6
Cranes	as required
"Y" gates	3
Fire hose (1 ")	600 feet (2 per wash rack)
Fire hose (2 ")	200 feet (2 per wash rack)
Fire nozzles (2 per wash rack)	8
Pump (55 GPM or greater)	2
Water truck (5000 gal)	1
Steam hose (" I/d, 12 foot lengths)	6
Steam hose (1 ")	300 feet
Air compressor	2
Steam manifold (6 stations)	1
Flatbed trucks for movement of supplies	as required
Portable head	2
Vehicle washracks	4

2. Personal charting gear is as follows:

Cold/Wet weather clothing	40 sets (assorted sites)
Hard hats	40
Straw brooms	40
Putty knives	200
Steel rod (5 feet)	12
Safety goggles	40
Rubber gloves	20 pair (assorted sizes)
Flashlights (and batteries)	24
Rubber boots	15 pair (assorted sees)
Water tank (3000 gal)	2
Wire brushes	100
Rags	as required
Ear plugs	25
Garden hose/nozzles	75 feet
Scrub brushes	100
Vacuum cleaner (wet/dry)	min. 6 as required for aircraft and HUMVEES
RT forklift	4
Steam Jenny	min. 2 as required for aircraft
Small flat bladed screwdrivers	min. 12 for cleaning tracks
Waterless hand cleaner	equivalent of 1 gallon

- a. All locks on compartments, boxes, tool chests, and other locked items will need to be removed prior to inspection. If keys cannot be found, provisions should be made to cut the locks.
 - b. Regarding proper tools, any jacks, tire irons, wrenches, special screwdrivers, or other required tools need to be available for the removal of dual tires, gun mounts, plates, and floor mat bolts on the different vehicles.
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APPENDIX C. GUIDE FOR UNITS CONDUCTING OPERATIONAL WASHDOWNS

I. USDA Inspections: The cleaning and inspection of retrograde equipment does not preclude a USDA Plant Protection and Quarantine Program Inspection upon return to CONUS. However, close coordination with the USDA usually results in a speedy transition at the CONUS port of entry.

II. Inspection Standards: Rigid USDA inspection standards allow only a thin film of road dust on vehicles and equipment at the CONUS final port of entry. **Because of these stringent standards, inspections of vehicles and equipment will be conducted only during daylight hours. Washing and cleaning at night saves very little time since most of those vehicles must be rewashed and reinspected.**

III. Guidelines prior to Operational Washdown:

A. Conference: Conduct a backload/washdown conference to include attendance by all participating commands and agricultural inspectors.

B. Training: Place emphasis on organization and training of washdown crews. Establish a suitable washdown crew schedule with adequate NCO supervision at each washdown point.

C. Vehicle Drivers/Assistant Drivers: Drivers and Assistant drivers must remain with assigned vehicles and accessory vehicle Hems throughout the washdown cycle. This will ensure timely movement of vehicles and security of accessory vehicle items and cargo.

D. Washdown-essential Equipment: Identify those Hems of equipment required to support operational washdowns early-on and schedule this equipment to be backloaded last.

E. Equipment/supplies certified as not exposed to contamination:

1. Isolate certified material in holds or specific cargo areas using some form of segregation such as wire screening or ropes to minimize the possibility of contact with materials that have gone ashore. Maintain strict control over these areas

2. Inspectors may check these areas during early stages of operational washdowns to ensure they are free of all dirt, debris, fn~H, beverage cans, etc.

F. Environmental Considerations: Assess the potential adverse impact of the wash operation and take all reasonable actions to minimize effects of used water and contaminants on the local environment. Fuel, oil, or soap residue in the wash water can result in visible contamination and/or significant fish and other marine organism kills that may invite serious political and financial repercussions from the host nation. Contaminants must be captured or removed to avoid contamination of runoff areas. The large amount of fresh water from wash operations, if allowed to run off into native bodies of salt or brackish water, can seriously alter dissolved oxygen and saline balance. If you have any doubts, consult with your legal staff and DoD Directive 6050.16 (DoD

Policy for Establishing and Implementing Environmental Standards Overseas Installations, September 20, 1991) and Its Overseas Environmental Baseline Guidance Document.

IV. Washing Standards:

A. Vehicles and equipment exposed to contamination and requiring less than a complete, detailed cleaning: This includes any vehicle or equipment that:

- will be exposed to a deleterious environment during its operation, subjecting any soil and other debris to a sterilizing or neutralization process. Such exposure would make it harmless from the standpoint of agricultural or public health concerns.

- is only minimally exposed to the natural environment because of its operational requirements. Examples would be as follows:

1. **SHIPS:** Thorough cleaning of all decks holding vehicles or equipment that were contaminated. This includes cleaning soil from recessed areas of the decks, i.e. clover leaves, pad eyes, and tie-down channels, as well as under shelving, from corners and other hard-to-reach areas. Some lower decks can be submerged with salt water to satisfactorily eliminate contamination problems, such as some Navy amphibious ships (LHAs, LKAs, and LHDs).

2. **LARGE AIRCRAFT REMAINING ON FLIGHTLINE:** Clean protected areas like wheel wells and around cargo or passenger doors. Visually inspect and assess need to clean cargo and flight deck.

3. **AMPHIBIOUS VEHICLES:** This includes Landing Craft Air Cushioned (LCACs), Light Vehicle-Tracks (LVTs), and similar vehicles. Clean troop compartment, crew area, and the crew's personal equipment. Ensure other areas are exposed to salt water during operation. If vehicles washed with salt water are to be transported on aircraft, all salt water must be removed or contained in such a way as to prevent contamination of aircraft with corrosive salt solutions which can seriously damage airframes.

4. **NAVAL VESSEL CAUSEWAYS:** Washdown with fresh or salt water during backloading.

5. **NAVAL SHIP LAUNCHES:** No cleaning is required of the Captain's launch, liberty launch, or other vessels unless they are contaminated (backloaded dirty). A thorough inspection by operator personnel is recommended.

B. Vehicles, equipment, and supplies exposed to contamination during operational exercises:

1. **ORGANIZATION FOR CLEANING:** Contaminated vehicles, equipment, and supplies are off-loaded. Accessory items and palletized supplies are staged in a pest free area for cleaning. Vehicles proceed to a steam or washing station as determined by inspectors. Upon final inspection, material from mobile loads is reloaded aboard vehicles and the clean vehicles and supplies are reembarked.

2. **FIXED AND ROTARY WING AIRCRAFT:** Clean cabin area, cockpit, wheels, wheel wells, skid/runner bars, under deck plates, panels, in flap wells and all other areas where foreign soil may have lodged. Clean crew and pilot personal equipment.

3. **LAND VEHICLES:** The cleaning of motor vehicles usually consumes the greatest amount of time and causes the most delays. The following cleaning procedures are recommended:

a. Complete the following actions before the vehicle arrives at the washrack -

(1) Sweep and/or vacuum the vehicle cab and all storage and tool compartments.

- (2) Remove the battery, clean the battery and battery box. Reinstall the battery.
- (3) Remove the outside dual wheels and spare tires and place them in the back for later cleaning at the washrack.
- (4) Remove all payloads, seat cushions, detachable sideboards, canvas sides/tops and any personal gear brought ashore, and leave at the mobile bad staging area.
- (5) Handpick or sweep any grass or vegetation from the radiator.
- (6) Let down the sides of all trucks that are equipped with collapsible sides.

b. At the washracks, vehicles will be hosed down with high pressure (recommend minimum 90 psi) fresh water or steam (steam may remove valuable protective coatings) paying particular attention to undercarriages, fender wells, axles, springs, bumpers, wheels and recessed areas. **As a corrosion prevention measure, never use salt water for cleaning vehicles.**

c. Inspect each vehicle thoroughly to ensure that all soil is removed. Use a flashlight, screwdriver, or putty knife where necessary. The following are common inspection checkpoints:

(1) TOD access

a Floor boards

b Battery box

c All storage/tool compartments

d Motor compartments

e Wheels and tires

f Windshield base (Jeep M-151)

g Front and rear bumper hollows and braces

h Radiator front

i Truck beds

j All other spaces where soil might be found

(2) Bottom access

a. Fender wells, front and rear including access openings for tail light wiring

b. Rocker panels

c. Frame, fore and aft

d. Coil spring wells, front and rear

e. Transmission support beam

- f. Rear suspension A-frame, pivot points and drain holes
- g. Trailer hitch bolt recess
- h. Front, side, and rear body lips
- i. Drive shaft tunnel
- j. Power take-offs
- k. Axle brackets
- l. Fuel tanks, between body and tank
- m. Transaxle brackets
- n. Leaf springs
- o. Air tank braces
- p. Drain and access holes (Gamma Goat M-561)
- q. Universal pint between body parts (Gamma Goat M-561)
- r. All other spaces where soil might be found

4. **Tracked Vehicles:** The cleaning of tracked vehicles is by far the most difficult and time consuming individual job of the entire operational washdown. It is strongly recommended that cleaning begin on board ship as soon as possible after the final contingency or exercise because of the excessive amount of time required to properly clean tracked vehicles. All soil impacted in the treads, around the rubber cleats, in the tread connectors, between and behind tread guides and roller supports, and all other spaces must be removed. The interiors must be soil free, including the battery box. The bilges may contain some sand, but only if it is mixed with salt water. If tracked vehicles are to be transported on aircraft, all salt water must be removed or contained in such a way as to prevent contamination of aircraft with corrosive salt solution. Tracked vehicles may be cleaned in the ship's well deck, with enough space for one complete revolution of tread. Tracked vehicles may be cleaned on shore only if they can be backloaded without re-contaminating the treads.

5. **Supplies and Equipment:**

a. Thoroughly clean mount-out boxes, field desks, communications equipment, and similar items with hand brooms, rags, and other non-water methods. Give specific attention to cracks, crevices, and recesses. Personnel must clean pallets, including the supplies and equipment, of compacted soil and vegetation. If necessary, crews may have to break down pallet loads to accomplish the appropriate level of cleaning. Whereas padlocked boxes must also be inspected,

responsible personnel with keys must be standing by, otherwise locks will be forced open.

b. Camouflage nets, tentage, and canvas are difficult to properly clean. Hand cleaning, although time consuming, is the most effective method.

c. Spread out tents and canvas on a pest free surface and swept down (no water) on both sides, paying attention to seam and flaps.

d. Take ashore only essential personal gear during the washdown. Personal gear will not be inspected at the washdown site. However, all personal gear taken ashore is considered contaminated and will be cleaned and subject to an inspection.

e. **Individual weapons will bo Inspected by unit commanders or their designated representatives.**

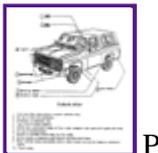
6. Illustrations of Specific Problem Areas By Vehicle Type (pages C-7 through C-18).



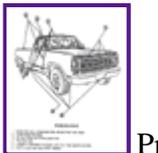
Problem Areas - Figure C-7



Problem Areas - Figure C-8



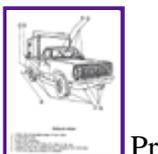
Problem Areas - Figure C-9



Problem Areas - Figure C-10



Problem Areas - Figure C-11



Problem Areas - Figure C-12



Problem Areas - Figure C-13



Problem Areas - Figure C-14



Problem Areas - Figure C-15



Problem Areas - Figure C-16

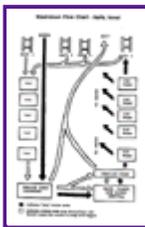


Problem Areas - Figure C-17



Problem Areas - Figure C-18

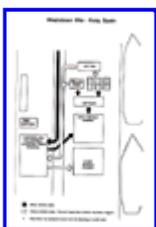
APPENDIX D. FLOW CHART OF TYPICAL OPERATIONAL WASHDOWN



D-2: PROSPECTIVE WASHDOWN FLOW CHART- HAIFA, ISRAEL



D-3: WASHDOWN SITE ROOSEVELT ROADS, PUERTO RICO



D-4: WASHDOWN SITE - ROTA SPAIN

APPENDIX G. SAMPLE LETTER FORMAT TO USDA OFFICIALS

DISEASE VECTOR ECOLOGY AND CONTROL CENTER
NAVAL AIR STATION, BOX 43
JACKSONVILLE, FL 32212

4 December 92

USDA APHIS/PPQ
NC Maritime Bldg., Room 216
113 Arendell Street, P.O. Box 53
Morehead City, NC 28557

Dear Sir:

The following ships were inspected along with their amphibious craft, vehicles, tanks, and equipment:

USS WASP

USS

USS

All ships and their cargo are ready for CONUS arrival. The inspection was satisfactorily completed and we recommend approval for acceptance. I can be contacted at (904) 772-2424 should you desire any additional information.

R. J. Officer
CDR MSC USN
USDA ID NUMBER _____

APPENDIX H. ADDRESSES OF USDA AND DOD OFFICES RESPONSIBLE FOR CLEARANCE AUTHORIZATION OR OTHER ASSISTANCE

WEST COAST ADDRESSES

USDA Plant Protection and Quarantine, San Diego

USDA APHIS/PPQ
P.O. BOX 434419
San Diego, CA 92143-4419
PH: (619) 428-7333
FAX: (619) 428-7335

USDA/Navy Liaison Coordinator, Camp Pendleton, CA

DSN: 526-3135 Comm: (619) 556-3135

USDA Plant Protection and Quarantine, Long Beach, CA

USDA APHIS/PPQ
300 South Ferry Street (Terminal Is.)
San Pedro, CA 90731
PH: (310) 514-6174
24 HRS ANSWERING MACHINE: (310) 514-6766
FAX: (310) 514-6398

USDA Plant and Quarantine, Portland, OR

USDA APHIS/PPQ
520 3rd Street, Room 106
Oakland, CA 94607
PH: (510) 273-6276
FAX: (510) 273-2969

USDA Plant Protection and Quarantine, Seattle Area, WA

USDA APHIS/PPQ (Maritime)
Jackson Federal Bldg.
915 2nd Ave., Room 3164
Seattle, WA 9817
PH: (206) 553-4510
FAX: (206) 553-2518

USDA APHIS/PPQ (Aircraft)
Fife Buisness Park
5009 Pacific Hwy East, Suite 20
Tacoma, WA 98424
PH: (206) 593-6364
FAX: (206) 593-6325

USDA Plant Protection and Quarantine, Pearl Harbor, HI

USDA APHIS/PPW
Honolulu International Airport
P.O. Box 57
Honolulu, HI 96819
PH: (808) 541-2952 - 24 HRS AVAILABILITY
FAX: (808) 541-6325

EAST COAST CONTACTS

USDA Plant Protection and Quarantine, Jacksonville, FL

USDA APHIS/PPQ
West Bay Street, Room 521
P.O. Box 35003
Jacksonville, FL 32202
PH: (904) 232-2687

USDA Plant Protection and Quarantine, Goldsboro, NC

USDA APHIS/PPQ
P.O. Box 83
Goldsboro, NC 27533
PH: (919) 735-1941

USDA Plant Protection and Quarantine, Morehead City, NC

USDA APHIS/PPQ
NC Maritime Bldg., Room 216
113 Arendell Street, P.O. Box 53
Morehead City, NC 28557
PH: (919) 726-4358

USDA Plant Protection and Quarantine, Wilmington, NC

USDA APHIS/PPQ
Rural Route 6, Box 53
Wilmington, NC 28405
PH: (919) 343-4667

USDA Plant Protection and Quarantine, Norfolk, VA

USDA APHIS/PPQ
Room 331, Federal Bldg.
200 Granby Street
Norfolk, VA 23510
PH: (804) 441-3211/2/5
FAX: (804) 441-6267

USDA Plant Protection and Quarantine, Ceiba, Puerto Rico

USDA APHIS/PPQ
US NAVSTA Roosevelt Roads
Air Operations Bldg.
Ceiba, PR 00636
PH: (809) 885-3320 SAME NUMBER CAN BE USED AS FAX (CALL FIRST)

DoD EXECUTIVE AGENT FOR MILITARY CUSTOMS INSPECTION PROGRAM

Department of the Army
ATTN: DALO-TSO-C
Washington, DC 20310
PH: (703) 614-4081/82
DSN: 224-4081
FAX: xxx-7124
MSG ADDRESS: HQDA WASH DC//DALO-TSP-C//

EUCOM EXECUTIVE AGENT

Office of the Provost Marshal

HQ, USAREUR and Seventh Army

ATTN: AEAPM-PO-EA

FPO AE 09086-0107

PH: (0621) 730-8381

FAX: (0621) 730-6006 or 7324

MSG ADDRESS: CINCUSAREUR MANNHEIM GE//AEAPM-PO-EA//

U.S. NAVY FLEET CUSTOMS INFORMATION

Navy Environmental Health center, ATTN: 02E or 037

2610 Walmer Avenue, Suite A

Norfolk, VA

PH: (804) 444-7575, ext 261

FAX: (804) 444-3672

MSG ADDRESS: NAVENVIRHLTHCEN NORFOLK VA//02E// or //037//

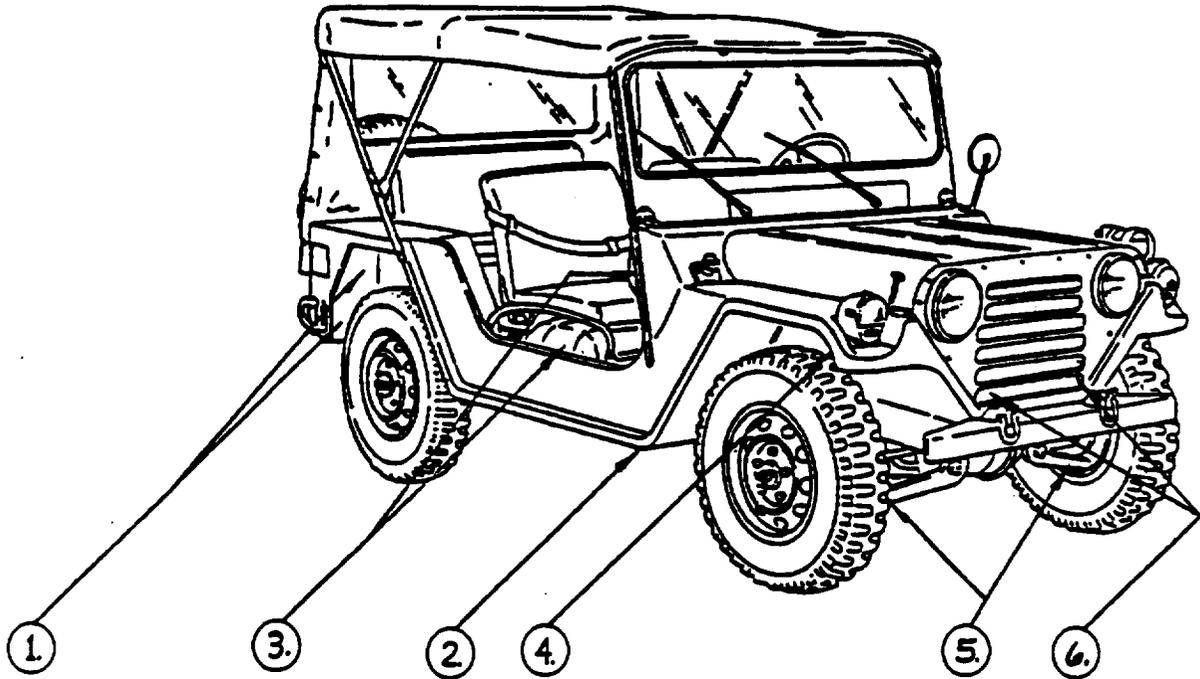
USDA APHIS GENERAL INFORMATION

USDA APHIS

6505 Bellcrest Road, Room 639

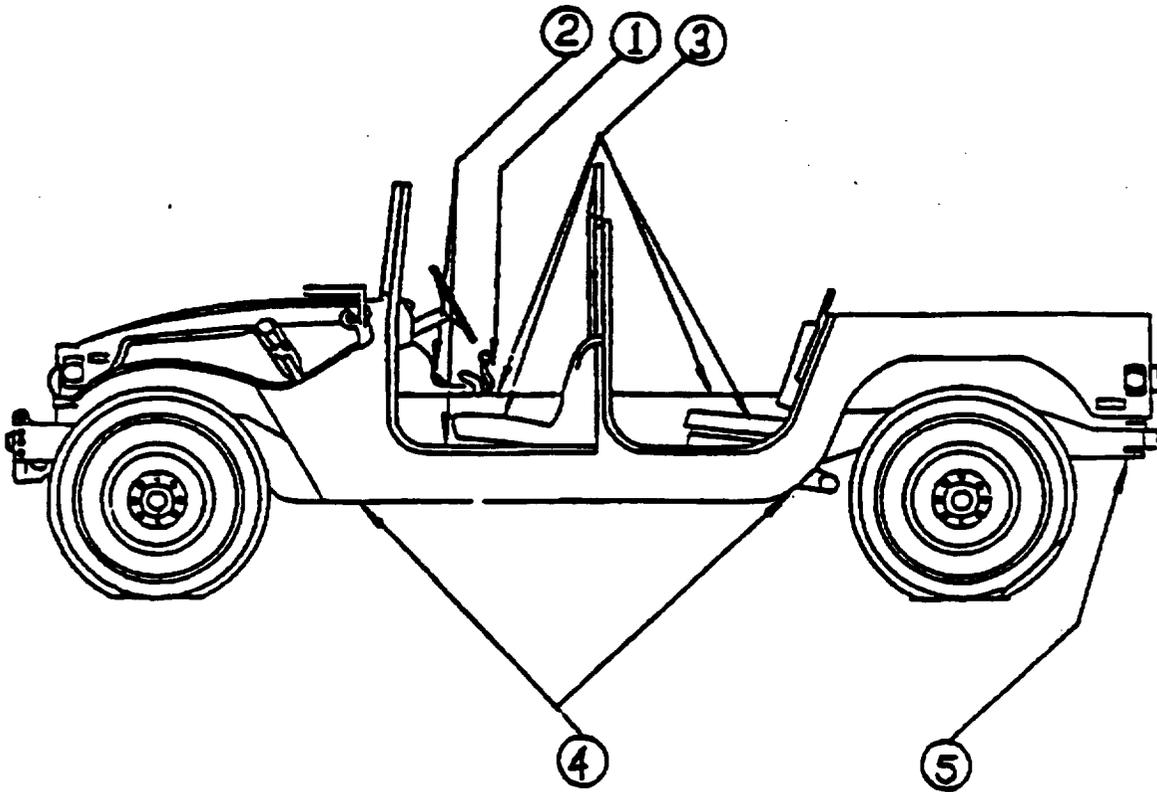
Hyattsville, MD 20782

PH: (301) 436-8295



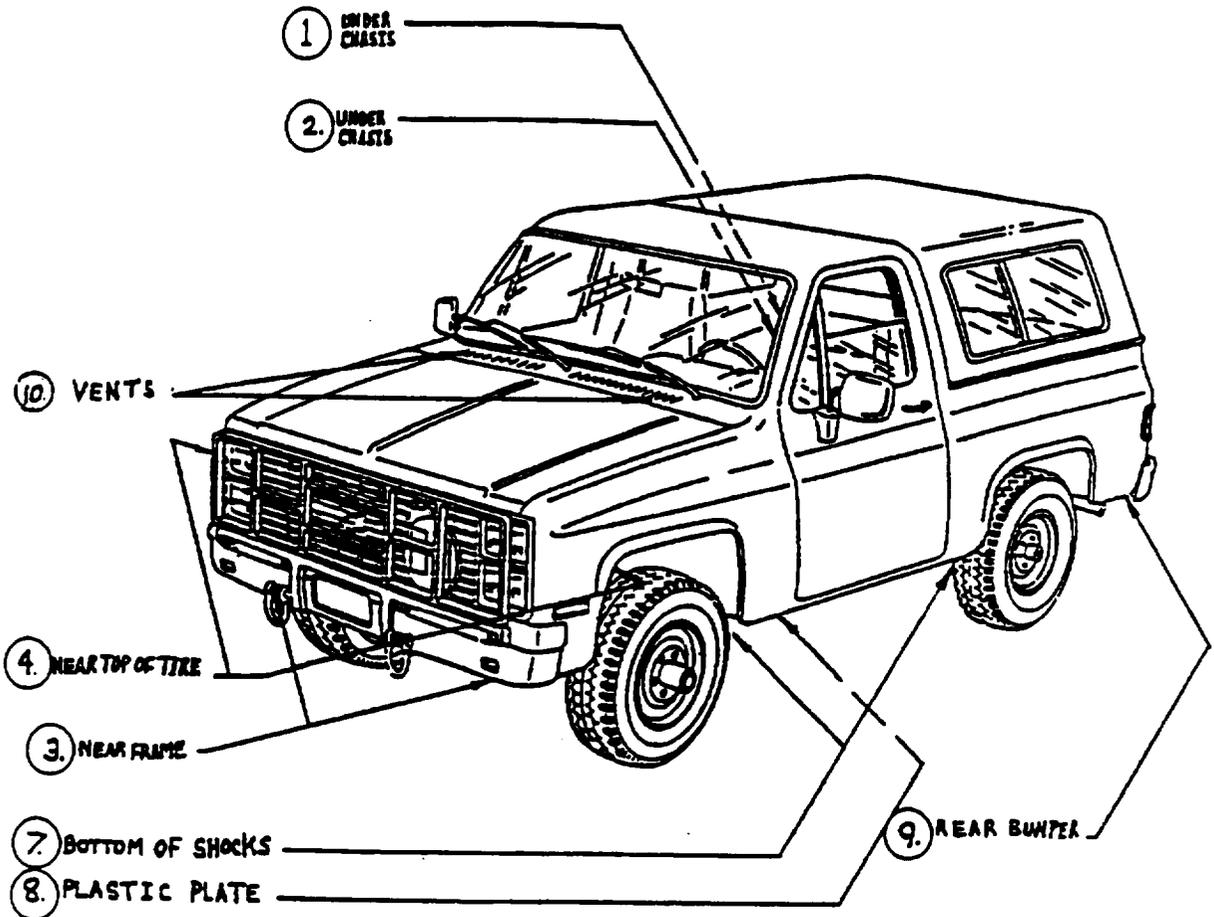
PROBLEM AREAS

1. In the rear wheel wells, through the holes in the bracket, and at the bottom.
2. On top of the plate that is underneath the transmission.
3. Inside the OVM and battery boxes, underneath the seats.
4. Under the front fender, in the V-shaped bracket that protects the wiring for the lights: both front fenders.
5. Underneath, on top and in the holes of the suspension for the front wheels.
6. In front of the grill.



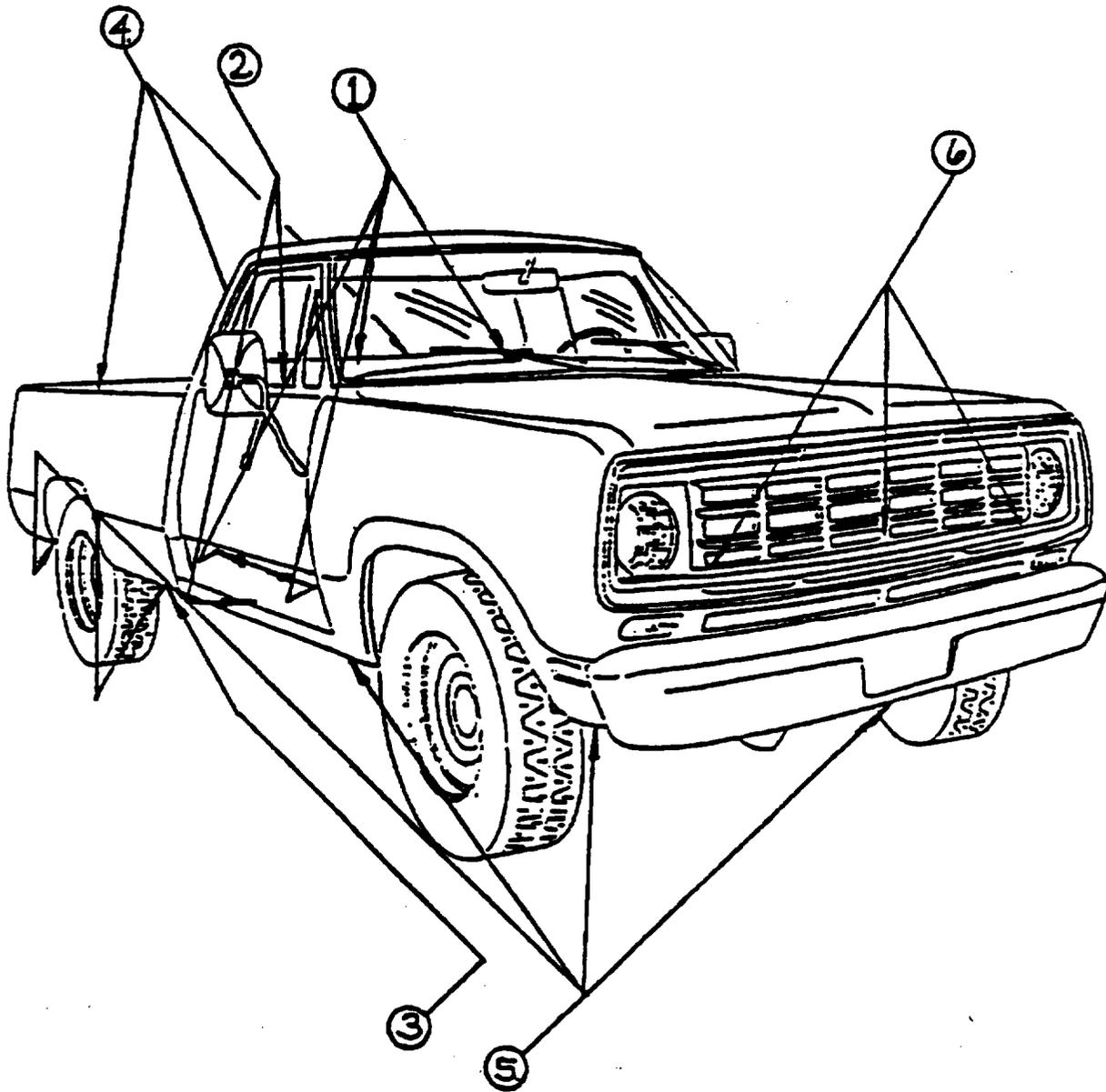
PROBLEM AREAS

1. In the battery box.
2. Underneath the floor mats, both sides.
3. Under and behind the seats, both sides.
4. In the holes of the front, and rear, A-frames.
5. In the light protecting, U-shaped brackets of the rear bumper; both sides.



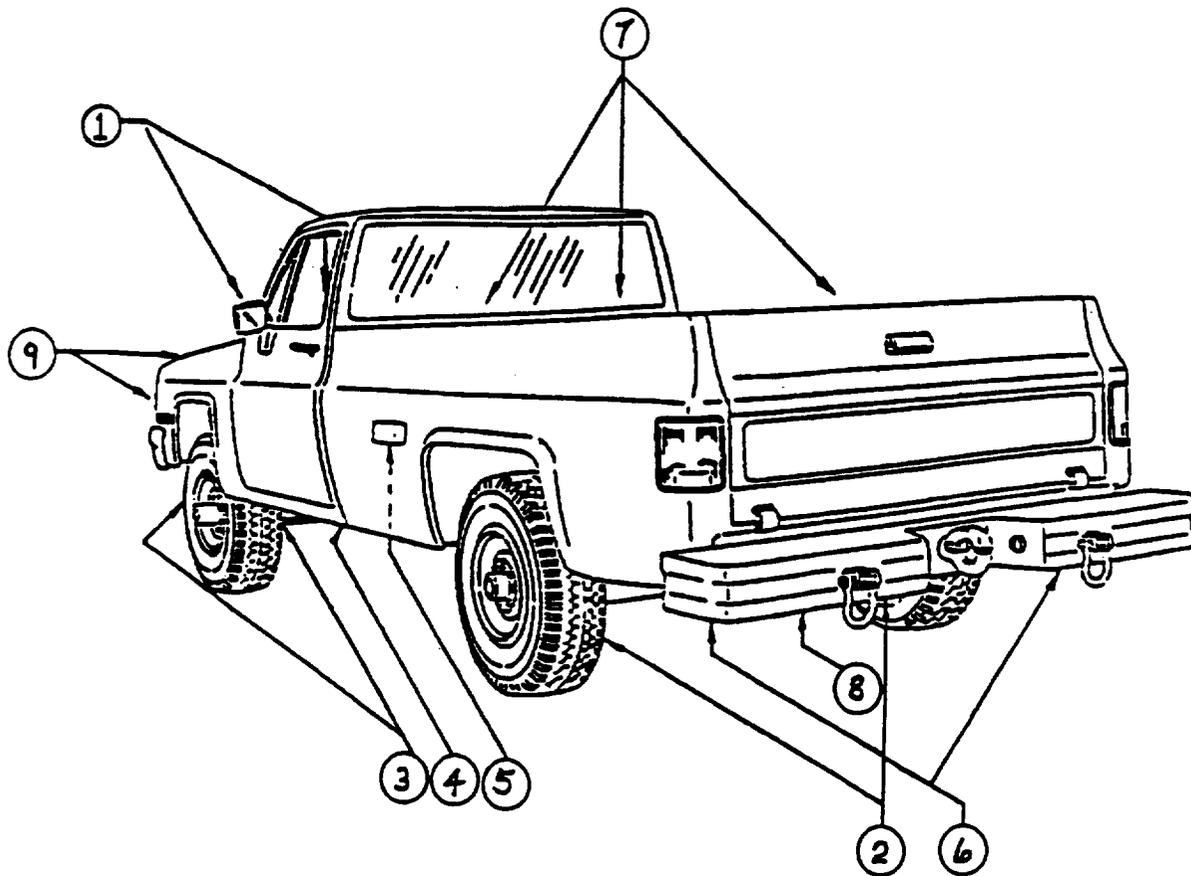
PROBLEM AREAS

1. Fuel tank filler tube where it enters vehicle body.
2. On top of fuel tank protector.
3. Shackles on stabilizer bar.
4. Top of front brake calipers.
5. Inside cab underneath edge of floor mats, weapon rack area and spare tire area.
6. On top of transmission.
7. Bottom of shocks where they join the axles.
8. Above plastic protective plate behind vehicle's front tires.
9. Rear bumper area (especially where plate covers wiring that leads to blackout lights).
10. Hood vents.



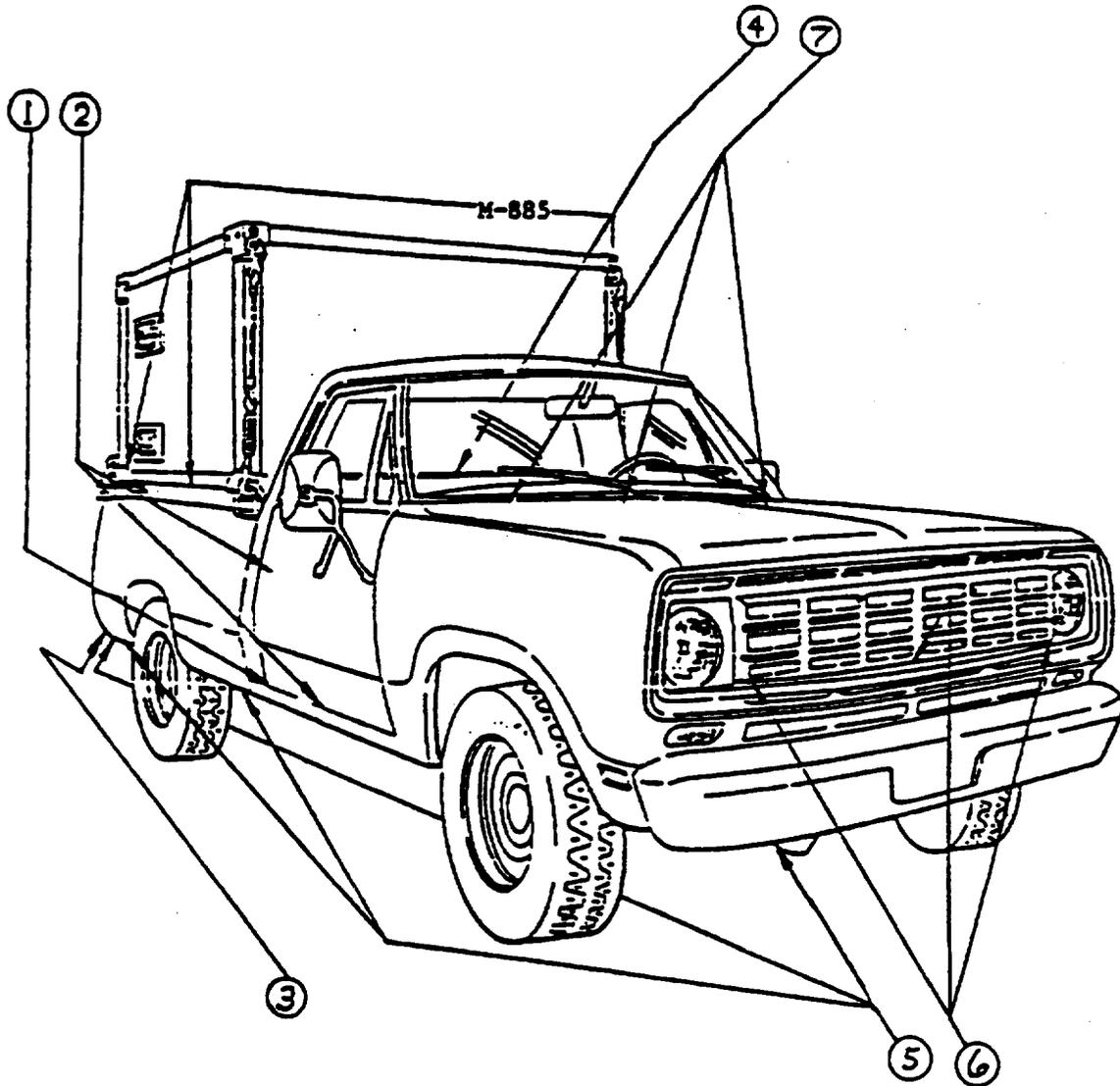
PROBLEM AREAS

1. Inside the cab, underneath the vehicle floor mat edge.
2. Underneath the seat.
3. On top of the rim of the spare tire.
4. The rear bed.
5. Ledges underneath bumpers, front and rear quarter panels.
6. Front of grill and tray under radiator.



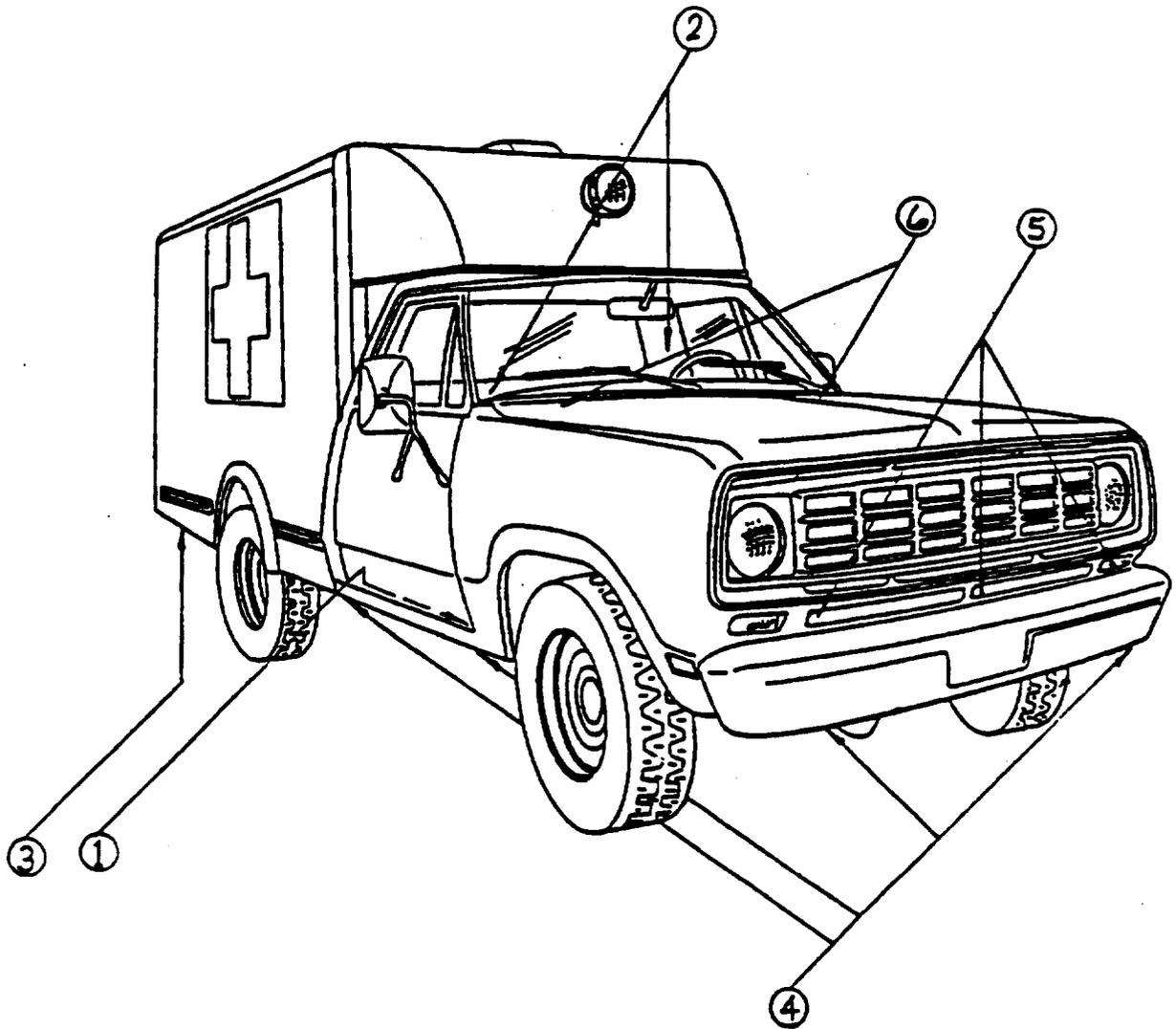
PROBLEM AREAS

1. Twigs and/or debris in vent openings.
2. Between the rear wheel brake drums and the steel rim of the wheel.
3. On top of front suspension components.
4. On top of transmission.
5. On the fuel inlet tube, where it bends, just before it comes in contact with the body of the vehicle; view it from underneath.
6. Rear bumper area, especially behind the U-shaped protective plate that protects the wiring for the blackout lights.
7. Twigs and/or debris in bed of vehicle.
8. On top of the rim, of the spare tire.
9. Front area of grill.



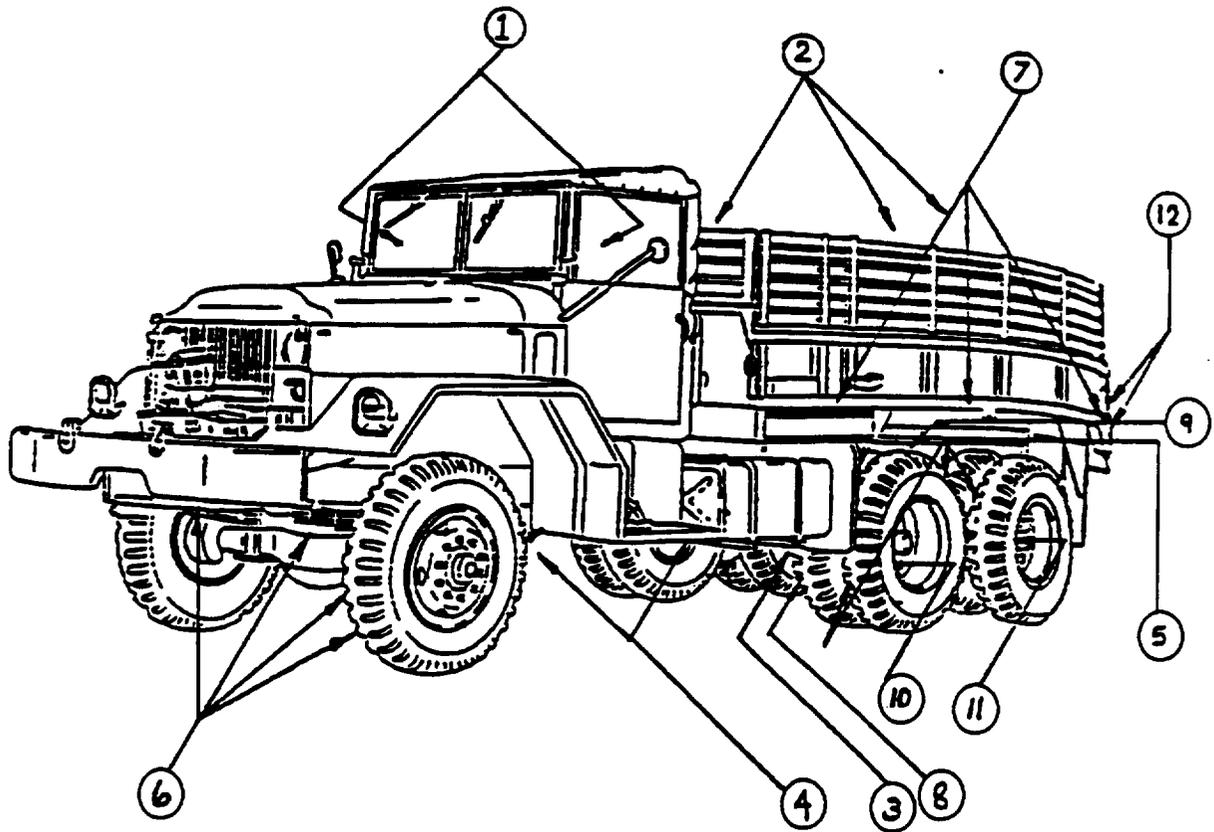
PROBLEM AREAS

1. Inside cab underneath edge of floor mats.
2. Underneath seat.
3. Spare tire mounting.
4. Underneath van and along the sides of the bed.
5. Ledges of the rear quarter panels, bumpers (front and rear).
6. Front Grill area and bottom of radiator.



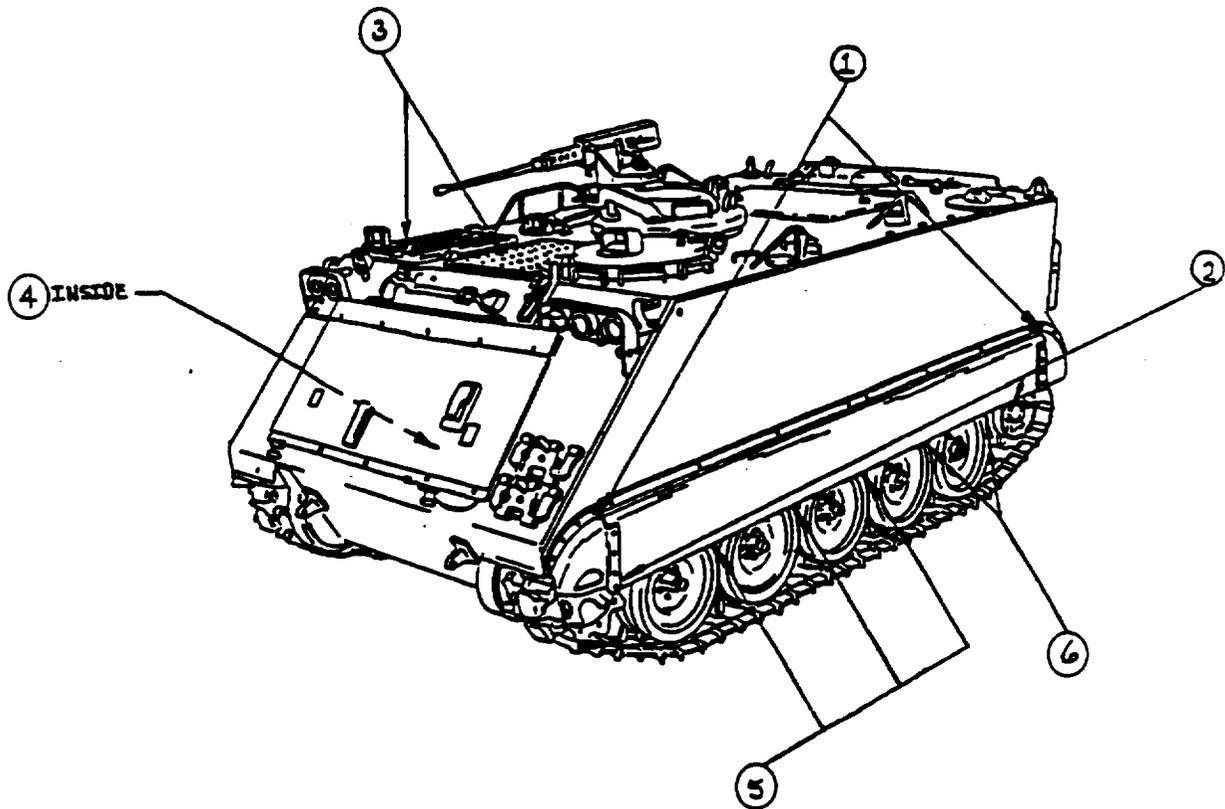
PROBLEM AREAS

1. Inside the cab, underneath vehicle floor mat edge.
2. Underneath the seat.
3. On top of the rim of the spare tire.
4. Ledges underneath bumpers, front and rear quarter panels.
5. Front grill and tray under radiator.
6. Leaves and twigs in the vent openings.



PROBLEM AREAS

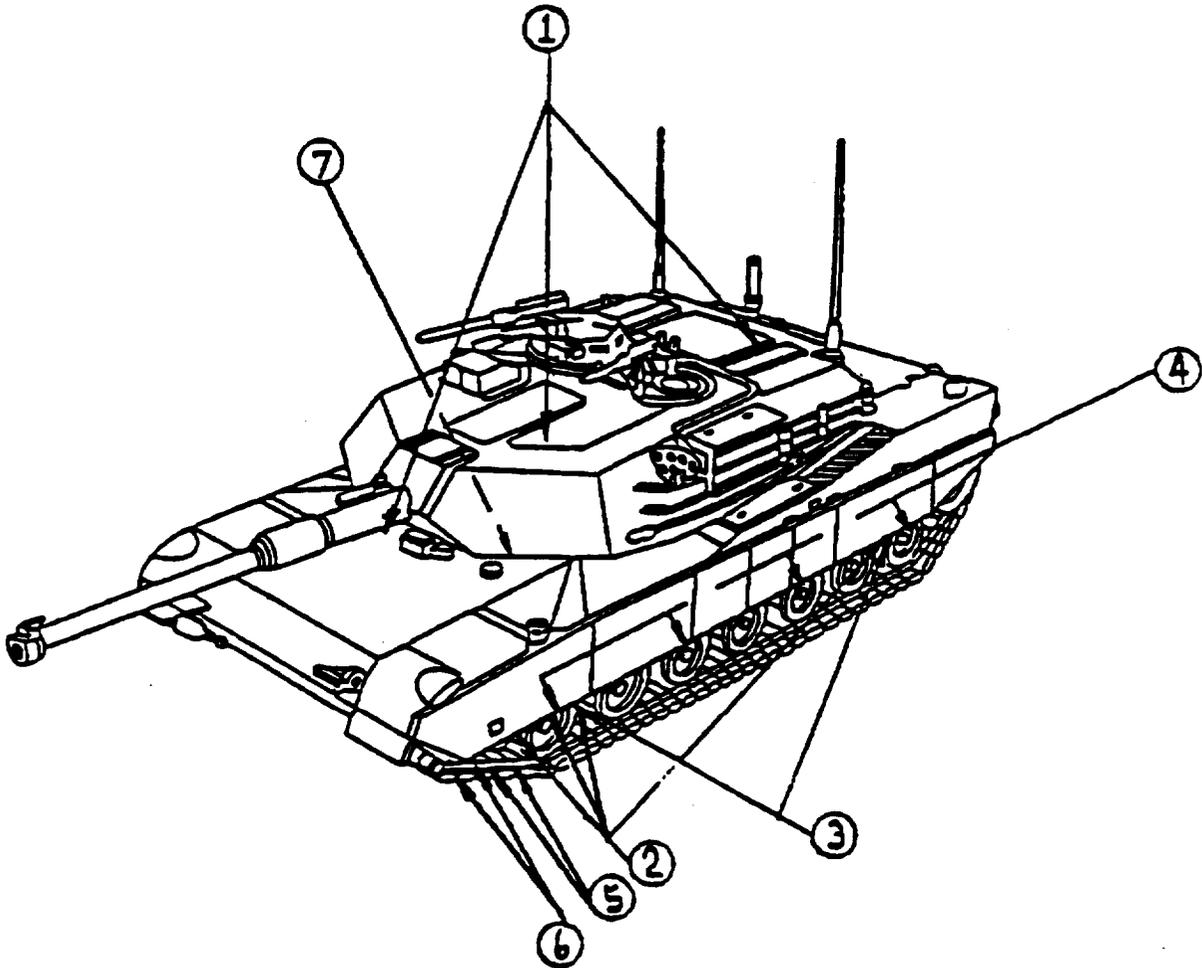
1. Under and behind both seats of cab.
2. Clean the floor of truck bed.
3. Between the brake drum and steel rim of wheel, of all rear wheels.
4. Underneath the platform for the OVM box and battery box.
5. Between the dual wheels, on the outer edge of the steel rim of each wheel.
6. On the ledges of the frame cross members.
7. On the ledges of the large channels which compose the main frame.
8. Drain plug of rear differential.
9. On top of leaf spring shackles
10. In the bracket between the rear wheels, from the outside.
11. In the bracket between the rear wheels, from the inside.
12. On the bottom ledge of the very rear cross member, and in the corners.



PROBLEM AREAS

1. Inside the front and rear fenders, remove fenders for inspection.
2. On top of the track tensioners.
3. Remove twigs and debris from grills and surrounding areas.
4. Underneath all floor plates inside; remove and leave loose for inspection.
5. The inside edges of all road wheels; from underneath and from the outside also.
6. On top of all axles for the road wheels and end wheels.

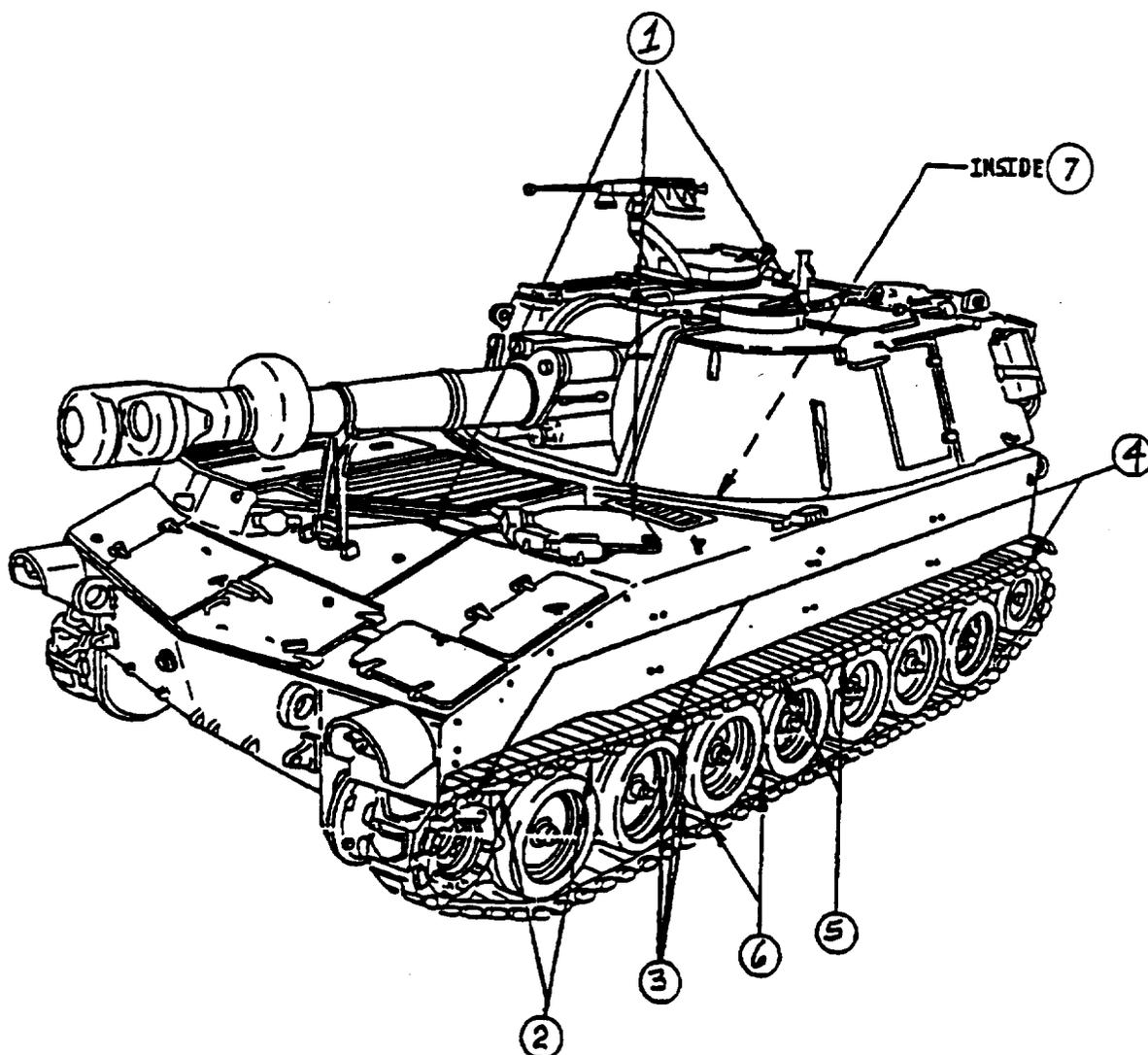
NOTE: Tracks are a MAJOR PROBLEM, clean thoroughly.



PROBLEM AREAS

1. Twigs and debris in the cracks and crevices of the top surfaces of the tank.
2. On top of the axles for both front and rear wheels.
3. On the inside of all road wheels and end wheels; from underneath and from the outside also.
4. On top of the axles for all road wheels, and on top of all tensioners.
5. On the support rollers, in the ledges, between the rubber surfaces.
6. On the support rollers, the inside surfaces; from the inside and outside.
7. Inside the tank, clean the floor, around the driver's footpedals.

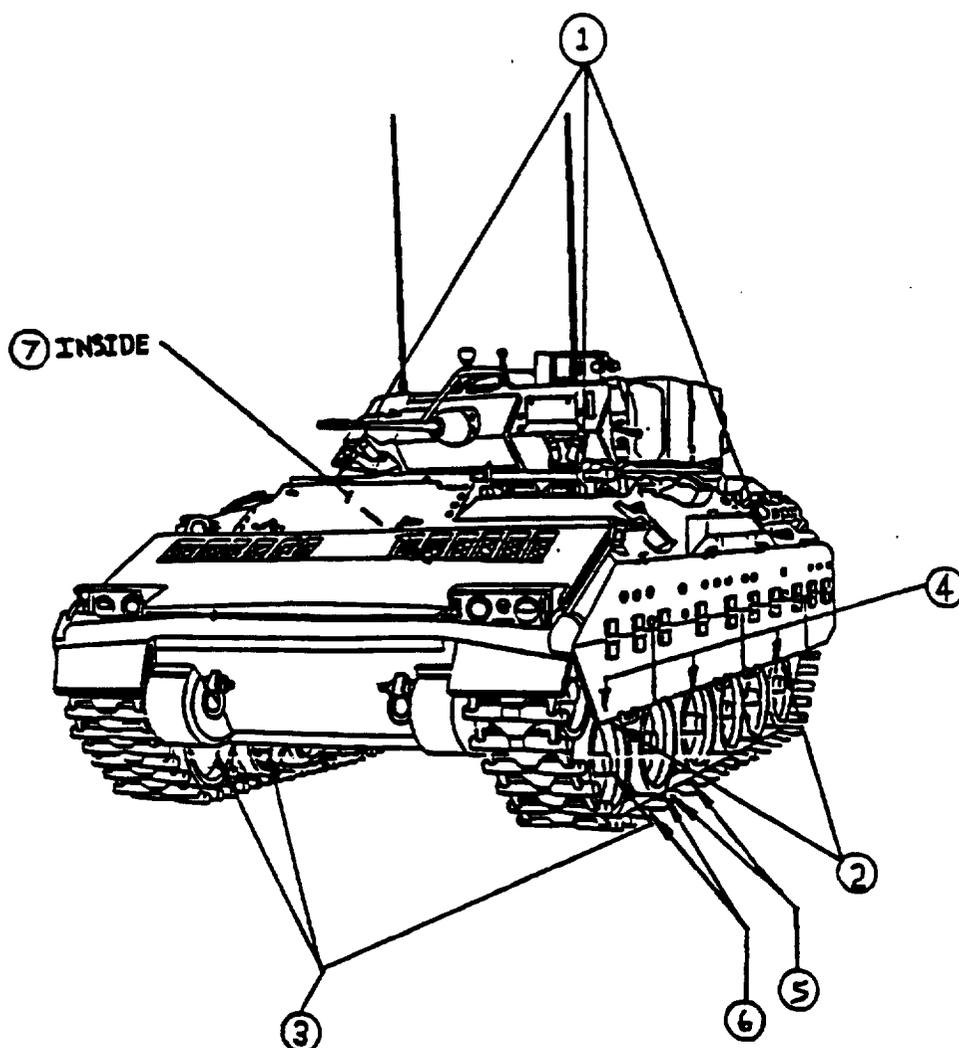
NOTE: Tracks are a MAJOR PROBLEM, clean thoroughly.



PROBLEM AREAS

1. Twigs and debris in the cracks and crevices of the top surfaces of the tank.
2. On top of the axles for both front and rear wheels.
3. On the inside of all road wheels and end wheels; from underneath and from the outside also.
4. On top of the axles for all road wheels, and on top of all tensioners.
5. On the support rollers, in the ledges, between the rubber surfaces.
6. On the support rollers, the inside surfaces; from the inside and outside.
7. Inside the tank, clean the floor, around the driver's footpedals.

NOTE: Tracks are a MAJOR PROBLEM, clean thoroughly.

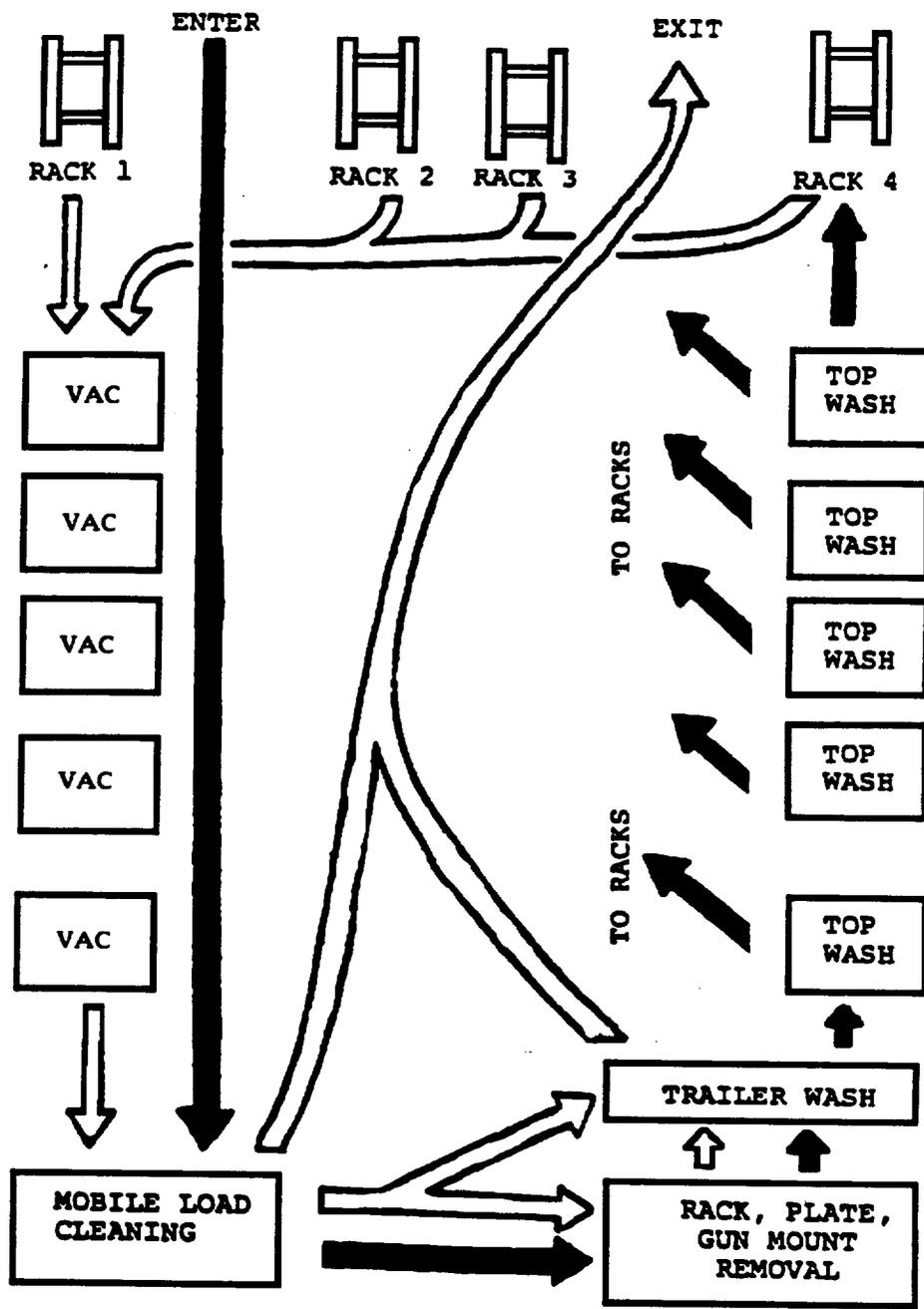


PROBLEM AREAS

1. Twigs and debris in the cracks and crevices of the top surfaces of the tank.
2. On top of the axles for both front and rear wheels.
3. On the inside of all road wheels and end wheels; from underneath and from the outside also.
4. On top of the axles for all road wheels, and on top of all tensioners.
5. On the support rollers, in the ledges, between the rubber surfaces.
6. On the support rollers, the inside surfaces; from the inside and outside.
7. Inside the tank, clean the floor, around the driver's footpedals.

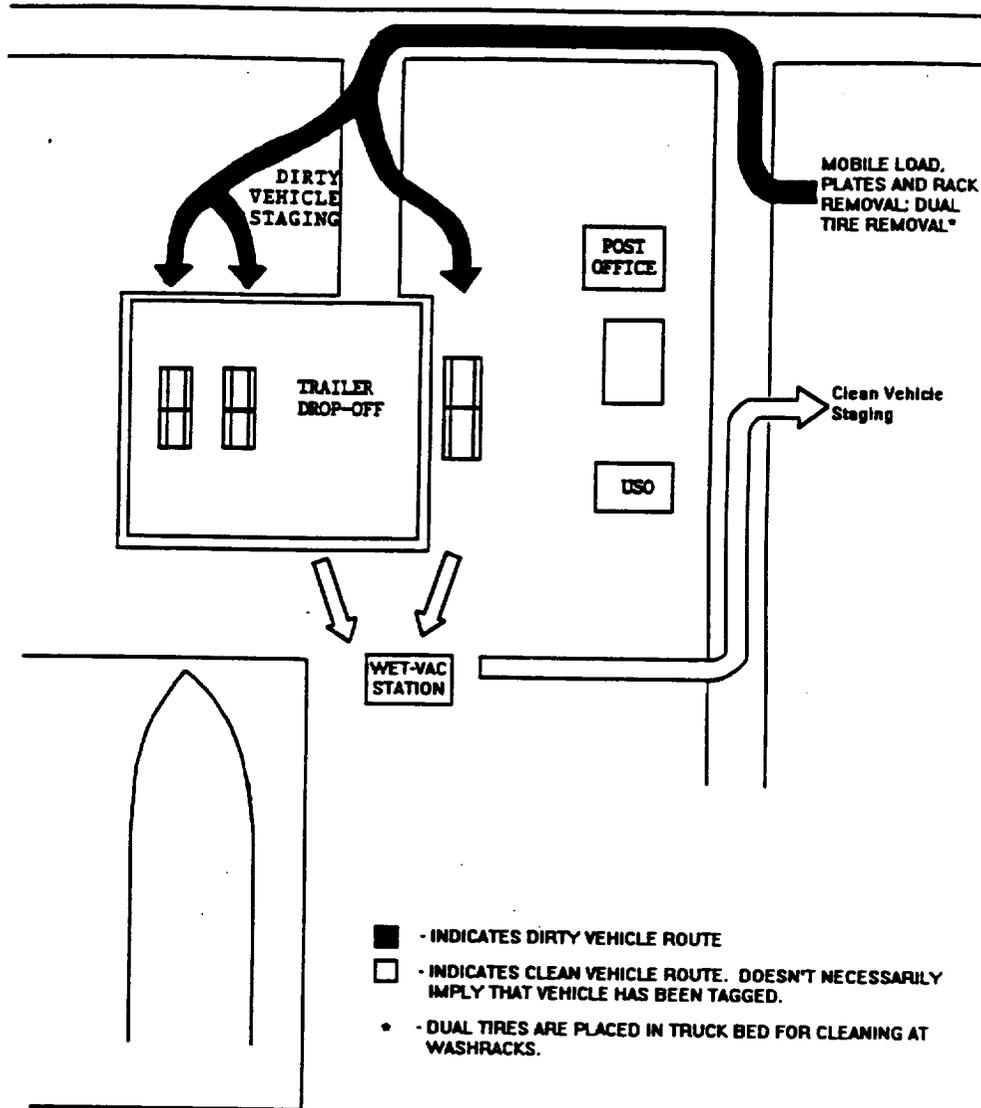
NOTE: Tracks are a MAJOR PROBLEM, clean thoroughly.

Washdown Flow Chart - Haifa, Israel



- - Indicates "dirty" vehicle route.
- - Indicates vehicle route once cleared from rack.
Doesn't imply that vehicle is ready to be tagged

Washdown Site - Roosevelt Roads, Puerto Rico



Washdown Site - Rota, Spain

