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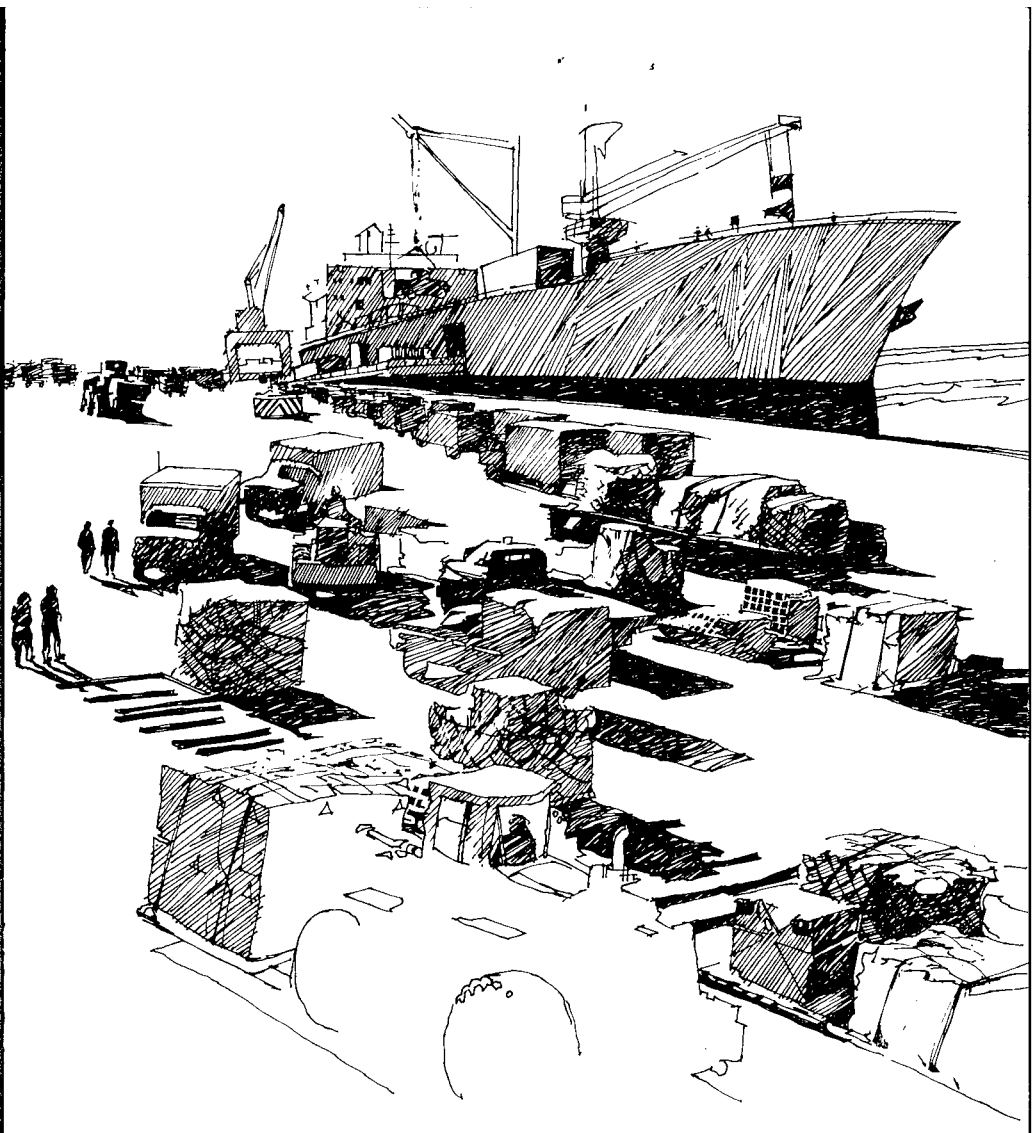

REDEPLOYMENT and PORT OPERATIONS

Leader's safety guide

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Foreword

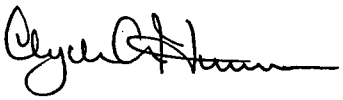
This pamphlet is intended to be used as a quick reference by unit leaders to help prevent accidents and save lives during the redeployment of our troops from Southwest Asia.

In a 1 March message, General H. Norman Schwarzkopf, Commander in Chief, U.S. Central Command, said, "During Operation Desert Shield, we were called upon to rapidly deploy and prepare for battle. Understandably, some risks were taken in the largest, most rapid movement of military forces in U.N. history. We took chances and 60 servicemembers' lives were lost during that operation. . . . We are now preparing for the last phase—returning home. The urgency of combat operations is no longer present. It would be absolutely criminal if after this historically successful campaign, with minimum loss of life, we accepted additional losses through carelessness, poor leadership, or negligence. I, therefore, charge every unit, down to the lowest level, to adopt the motto 'Not one more life'. . . as a constant reminder to all of us. Everyone from four-star general to fire-team leader, section chief, and section leader must personally appoint himself or herself as safety officer and safety NCO and pledge to never walk by a safety mistake. . . ."

I strongly agree with General Schwarzkopf's "not one more life" policy and encourage leaders at all levels to prevent losses during redeployment by—

- Establishing and enforcing high standards of performance.
- Creating a command climate of "tough caring" that includes immediate on-the-spot correction of *every* violation of procedures.
- Using risk management principles to make good decisions.

Let us all resolve that not one more life will be lost because we didn't do our job.



C.A. HENNIES
Brigadier General, USA
Director of Army Safety

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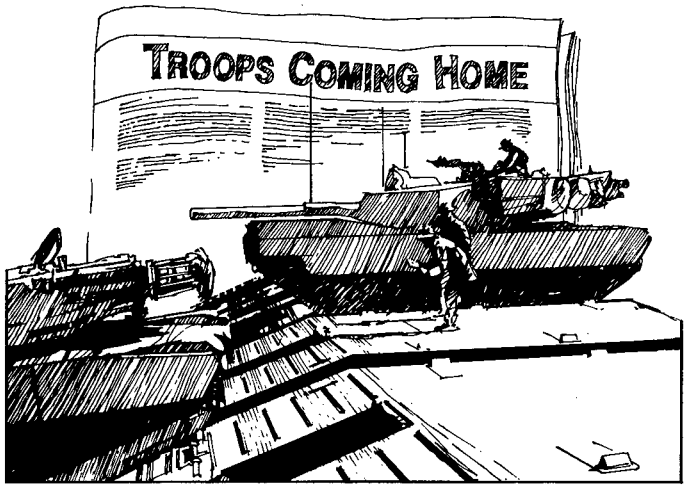


SECTION I

Before-Departure Preparations

Everybody wants to get home; *however*, proper before-departure preparation of both troops and equipment is essential. The following lessons learned from the deployment phase show how the pressure to ship can overwhelm Army shipping performance and safety standards. Sound planning *now* can prevent similar occurrences during redeployment.

Situation: Secondary loads not properly secured. Secondary loads were piled, scattered, or haphazardly placed in vehicles. Televised reports showed loose cargo falling from the hatches of M-1 tanks as they were being loaded on heavy-equipment transports after being offloaded from ships.

Recommendation: Transportation officers and unit commanders must ensure that secondary loads are secured to prevent motion-induced damage.

Situation: Secondary load weights not reflected in LOGMARS/AUEL data.
Logistics applications of marking and reading symbols (LOGMARS) labels reflected only empty vehicle weights. Cargo trucks, ammunition carriers, and even combat vehicles were loaded with every conceivable secondary load, but none of these loads were reflected in the automated unit equipment list (AUEL). In some cases, 5-ton trailers were loaded with as much as 10 tons of cargo. Ammunition carriers were full of ammunition, fuel tankers were loaded above design capacity with fuel, and main battle tanks were stuffed with main rounds, .50-caliber ammunition, hand grenades, and other explosives and supplies. In numerous cases, the weight of the secondary loads exceeded the reported weight of the vehicle by three or four times.

Recommendation: Transportation officers and unit commanders at all levels must ensure that AUEL/LOGMARS data reflect actual "as shipped" weight, not "as published" weights.

Situation: Secondary loads of *hazardous materials* not reflected in LOGMARS data.
LOGMARS labels gave no indication that ammunition carriers were full of ammunition; maintenance trucks were loaded with oil, grease, and oxygen and acetylene tanks; or HMMWVs were carrying stinger missiles. Also, most tanks and personnel carriers were loaded with boxes of ammunition and other explosives. Some of these boxes were damaged to the extent that the ammunition and other explosives were scattered all over the interior of the vehicles. In some cases, full fuel cans were lying loose among the explosives. No attempt had been made to segregate hazardous materials. In addition, vehicles loaded with ammunition and other explosives were parked surrounded by fuel tankers. This was true both on the pier and in the ships.

This situation was due in large part to the lack of secondary load data. As a result of the lack of data, the automated systems could not be used to prepare dangerous-goods

manifests. Also, stow planners and cargo supervisors were unable to maintain segregation of hazardous materials.

Recommendation: Shippers must provide accurate LOGMARS data and segregate hazardous cargo.

Preparation checklist

Use the following checklist to prepare for redeployment:

- Start each day with a safety briefing to combat get-home-itis and establish safety awareness.
- Establish a vehicle loading plan for sea shipment. Make sure nested vehicles (those carried in the backs of other vehicles) are included in the load plan. Include nested vehicles and blocking and bracing material requirements for all general cargo.
- Do not overgross prime mover carrying a nested vehicle. Make sure AUEL reflects the prime carrier and its nested vehicle or built-up actual height, length, and weight.
- Always block, brace, and tie down both nested vehicles and general cargo.
- Make sure nested vehicles have all lifting shackles in place in case they must be de-nested at the port.
- Inspect shackle support and supporting vehicle structure to make sure it is in good shape and that welds on shackle bracket are sound.
- Check each vehicle for condition of all lifting shackles, proper size of shackle, and proper size of shackle pin and cotter key.
- Always carry extra shackles for unit vehicles. (Shackles often disappear, and, without shackles, the vehicle may not be shipped.)
- Identify lifting shackles by painting the word "LIFT" next to them. Paint "TIEDOWN ONLY" next to tiedown shackles.
- Establish ammunition turn-in procedures and enforce penalties for violations.
- Turn in all ammo and munitions.
- Check each vehicle for loose rounds or pyrotechnics and for munitions tucked into storage compartments.
- Check pack pockets and gear pockets for loose rounds; turn them all in.

• Inspect unit gear to ensure no ammunition or other explosives are inadvertently packed away.

• Establish standard for inspections and retention of war souvenirs.

• Inspect each war souvenir for hazards and Department of Agriculture appropriateness.

• Check for critters in unit gear. Kill them.

• Identify "sensitive class" unit cargo and make sure AUEL reflects this status.

• Identify hazardous classes of cargo, and eliminate compatibility problems. Make sure unit AUEL accurately reflects which vehicles contain sensitive or hazardous cargo.

• Do not leave loose items in vehicle cabs. During a long, rough sea voyage, items could beat themselves and the inside of the vehicle to pieces.

• Be mindful that your vehicle may be loaded on deck and not down in a dry hold. The best way to check your load plan is to ask yourself, "If this truck were under a constant stream of sea water, would my load plan still be okay?"

• Block and brace equipment in the back of trucks to the maximum extent possible. Ships ramps sometimes exceed 45 degrees. Loose gear will tumble out.

• Tie down, block, and brace all cargo. A sea voyage is twice as rough as a road march; so don't pack for a road march.

• Use plastic to wrap radios in racks located inside vehicles and tracks.

• Adjust vehicle fuel loads so that vehicles arrive at port with tanks no more than three-quarters full. Always check with the departure port Army terminal unit for the latest in-county standards for fuel tank levels and 5-gallon fuel-can levels. Drain fuel from generator sets before packing.

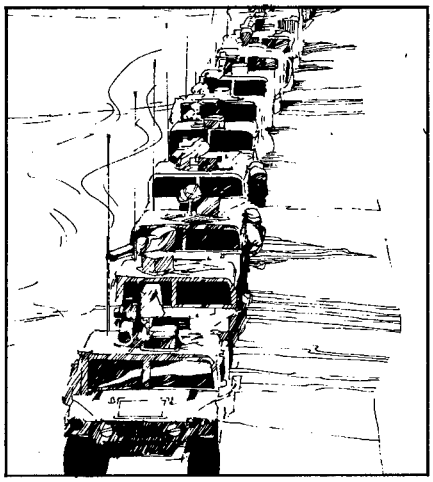
• If fuel tankers must be purged, make sure that all hoses are also drained.

• Do not drain POL tanks and hoses onto ground. Use proper fuel drain cans and dispose of drainings per unit SOP.

• Ensure that vehicles containing compressed gas cylinders (other than a fire extinguisher) are placarded on both sides

of the vehicle with standard hazardous cargo placards (available from division/corps transportation officer).

- Remove oxygen and acetylene cylinders from wreckers and maintenance vehicles. Build bottle racks in a trailer, and secure all battalion acetylene bottles in the racks. *CAUTION:* Do not overgross the trailer. Stencil unit designation on each bottle. Properly placard the trailer.
- Make sure gas cylinder bottles have caps and that caps are secured.
- Inspect all vehicles for fuel, oil, and other leaks. Correct them.
- Ensure that any vehicle with a brake problem has a big steering wheel placard stating "CAUTION, NO BRAKES. DO NOT DRIVE. MOVE WITH TOW BAR ONLY."
- At the start of each day, go over standard ground-guide safety procedures and hand and arm signals. Stress ground guide use in the motor pool and vehicle preparation areas.
- Ensure drinking water is available in vehicle preparation areas.



SECTION II

Movement to Port

The movement to port phase covers the unit's deployment from the field base to the port area.

Movement liaison team

Experience during deployment shows that the transition from field to port is more effectively accomplished if a liaison team is created to perform the following functions:

- Ensure the safe and timely processing of unit assets from field assembly areas through marshalling areas to the port in accordance with the port-call message. Allow for adequate driver rest.
- Set the tone for the move by emphasizing the commander's safety standards at each phase of the movement sequence.
- Perform risk management analysis of movement operations, and present command group with options to eliminate movement to port risks.
- Provide a single point of contact for all safety and operational questions concerning equipment preparation standards for sea shipment.

•Maintain liaison with port operating elements regarding equipment preparation, U.S. Customs, Department of Agriculture standards, and the port-call message.

•Resolve movement to port problems before departure to port.

•Provide a seaport element to make final vehicle shipment decisions; for example, with one space left on the ship, do you send the A Company or the B Company vehicle?

•Keep the command group and participating units informed.

•Establish controlled environments in which soldiers are cared for and accounted for from start point through their time at the seaport of debarkation (SPOD).

•Maintain unit integrity of personnel at SPOD.

•Organize maintenance assets to assist Port Support Activity (PSA) in fixing vehicles in the marshalling and port areas to ensure serviceability and readiness for sea shipment.

The movement liaison team should consist of a team leader, an assistant team leader, an NCOIC, and an administrative NCO. For communication, the team will require—

•Hand-held brick-style radios.

•Secure fax.

•Published FM frequency.

•Dedicated phone line at base and port.

•Dedicated utility helicopter reserved for maintenance/parts flights or command and control missions.

The liaison team leader should be located at the assembly area during vehicle preparation and at the port during the movement to port phase. The liaison team should develop a marshalling area plan that covers—

•Receiving convoys.

•Refueling and/or defueling vehicles to Coast Guard limit. Arrange for excess fuel storage.

•Performing unit/direct support maintenance before staging.

•Providing final technical inspection to ensure that all vehicles are ready for sea shipment.

•Pre-staging vehicles by unit or by type.

•Messing and sleeping areas as required.

•Latrine facilities.

•Administrative support.

•Personnel control so the area does not become a giant parts/supply opportunity.

•Quick spot-check by port personnel of vehicle preparation and LOGMARS labels to make sure that if any last-minute problems are found, they can be corrected in the assembly or marshalling area.

Convoy checklists

Following are detailed checklists that commanders, liaison team members, convoy planners, and unit safety personnel can use to ensure that convoys to the seaport of debarkation are professionally and safely planned.

Route selection

Ask the convoy commander or convoy planner these questions.

•Has map reconnaissance been completed?

•Has a physical reconnaissance been made of the entire route?

•Can all vehicles clear bridges, underpasses, tunnels, and other clearance and weight limits? If not, have alternate routes been selected?

•Can all vehicles maintain minimum speed limits? If not, have alternate routes been selected?

•Have urban or potentially congested areas been identified?

•To avoid congestion, have alternate routes been selected?

•Has convoy movement been planned to avoid peak traffic periods?

•Have alternate routes been selected for vehicles transporting oxygen, acetylene, or other compressed gases?

•Have strip maps of the entire route been prepared?

•Does each convoy vehicle have a strip map?

•Have traffic control points been established at hazardous locations?

Start and release points

Ask the convoy commander or convoy planner at battalion level these questions.

- Is adequate space available for vehicle organization and lineup at start point?
- Is sufficient space available for maneuvering of vehicles, sequential lineup of vehicles, and march units and serials?
- Has arrival time at release point been established?
- Is adequate space available for safe vehicle release?

Controlled-access highways

If convoy movement will take place on controlled-access highways (those where entry and exit is permitted only at specific points), ask the convoy commander or convoy planner these questions.

- Have halt areas been identified along the route?
- Has a 15-minute halt been scheduled after the first hour, and 10-minute halts every 2 hours thereafter?
- Are all halts planned in designated rest areas?
- Have all halt areas been physically reconned to ensure sufficient capacity?
- Are halt areas shown on strip maps?
- Are halts scheduled to avoid overloading of halt areas?
- Do areas for meal halts contain the following?
  - ☐ Sufficient areas for cooking and eating?
  - ☐ Waste disposal facilities?
  - ☐ Latrines?
- Do bivouac sites contain the following?
  - ☐ Sufficient area for cooking, eating, and sleeping?
  - ☐ Waste disposal facilities?
  - ☐ Latrines?
  - ☐ Area for vehicle maintenance?
  - ☐ Security for cargo?

Conventional highways

Ask the convoy commander or convoy planner these questions.

- Have halt areas been identified along the route?
- Has a 15-minute halt been scheduled after the first hour, and 10-minute halts every 2 hours thereafter?
- Are halt times adjusted to permit halts at safe locations?
  - ☐ Location is away from urban or heavily congested areas.

- ❑ Terrain permits vehicles to completely clear highway traffic lanes.
- ❑ Location avoids curves or reverse sides of hills (blind spots from approaching vehicles).
- ❑ Location permits minimum of 3 feet between parked vehicles.

• Are halt areas shown on strip maps?

Convoy organization

Ask the convoy commander or convoy planner these questions.

• Are convoys of more than 20 vehicles separated into serials?
• Are serials divided into march units if required?
• Is convoy element size based on capacity of halt/bivouac areas?
• Have the following personnel been designated and briefed?
  - ❑ Commanders for each serial and march unit.
  - ❑ Pace setter.
  - ❑ Trail party.
  - ❑ Claims officer.
  - ❑ Drivers and assistant drivers.
• Are vehicles transporting troops not the last vehicle in a serial or march unit?
• Are empty vehicles or those carrying general cargo used as buffers (i.e., last vehicle in convoy)?
• Are recovery and medical vehicles near the rear of the convoy?
• Is the convoy organized initially with 5 minutes between march units and 10 minutes between serials?
• Have adjustments to time gaps been identified and planned for?
• Are convoy and convoy element commanders positioned for best convoy control?
• Has convoy operation during periods of darkness been avoided?
• Are the following proper vehicle intervals planned?
  - ❑ Controlled access highway: 220 yards.
  - ❑ Rural conventional highway: 150 yards.
  - ❑ Urban conventional highway: 50 yards.

- Does each driver have a strip map?
- Is the convoy commander checklist completed?

Convoy ID and communications

Ask the convoy commander or convoy planner these questions.

- Are lead, rear, and element commander vehicles correctly identified?
- Are flags and signs correctly mounted on each vehicle?
- Is each convoy identified by a convoy clearance number?
- Has method of communication been decided?
- Has radio equipment (ideally, 2-way radio in first and last vehicle of each serial and unit) been checked and assigned to vehicles?
- Have signal operating instructions been provided to vehicles with radios and the liaison team?
- Have personnel been briefed on visual and audio signals?
- Have road signs and messages been constructed and placed as required?

Logistical support

Ask the convoy commander or convoy planner these questions.

- Are medical personnel scheduled and posted in rear of convoy?
- Are sufficient food and mess personnel and facilities available?
- Do all personnel have proper clothing and equipment?
- Has weather briefing been obtained for duration of convoy operation?
- Have provisions been made for obtaining weather updates?
- Is special equipment available based on weather requirements?
- Have weather effects been determined and planned for on halts, meals, and bivouacs?

Convoy personnel briefing

Ask **ONLY** the convoy commander whether leaders have given drivers the following instructions.

• Permit emergency halts only on roadside of controlled access highways.

• Permit only guards and maintenance personnel on traffic side of convoy during halts on conventional highways.

• Drivers and assistant drivers perform vehicle operator maintenance and check cargo security at every stop.

• Have guards stand 50 yards behind departing convoy to warn traffic on conventional highways.

• Assistant drivers will remain awake *and* alert.

• Reflectors and warning devices must be in place before beginning maintenance.

• Warning lights are used during periods of darkness or low visibility.

• Convoy begins only at convoy commander's signal.

• In case of accident, main column does not stop to provide assistance. Next following vehicle provides immediate assistance to accident vehicle.

• If an accident occurs to vehicle ahead, make maximum effort to clear traffic lanes.

• First officer or NCO at accident scene takes charge.

Refueling and maintenance halts

Ask the convoy planner these questions.

• Are sufficient supplies of diesel, mogas, and oil available for refueling?

• Are refueling halts planned for bivouacs?

• If not, is refueling planned for noon meal halt?

• Have vehicle operator maintenance checks been scheduled for every halt? Who inspects the drivers for signs of fatigue? What is the plan for driver changes?

• Are sufficient maintenance vehicles and equipment available in rear of convoy?

• Are spare vehicles available for emergencies?

• Are all vehicle refuelers properly equipped and trained?

Vehicle preparation

Ask the convoy planner these questions.

• Have participating units been notified as much in advance as possible?

- Have all vehicles been inspected in vehicle assembly area?
- Have all spot corrections been made on vehicles?
- Does the loading and unloading plan include—
  - ❑ Designation of persons to execute plan?
  - ❑ Times and locations for loading and unloading?
  - ❑ Orders not to load troops in vehicles with motor fuel or hazardous cargo?

Driver preparation

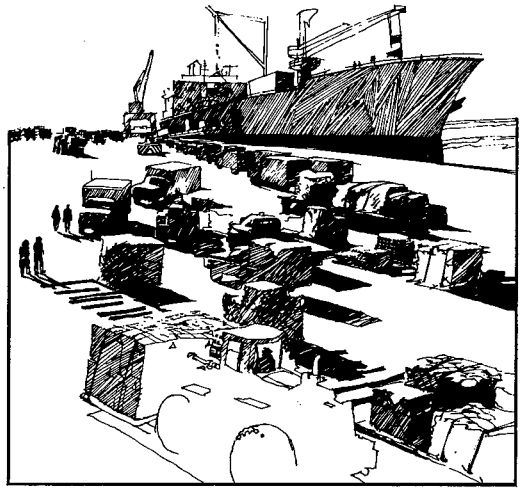
Ask the unit or convoy commander these questions.

- Are all drivers qualified in assigned vehicles?
- Are drivers and assistant drivers assigned to each vehicle?
- Do all drivers have government drivers license OF 346?
- If not, have arrangements been made to test drivers or obtain alternate drivers?
- Are experienced drivers being used to the maximum extent possible?
- If not, are less-experienced drivers scheduled for training?
- Have drivers and assistant drivers been scheduled to split driving periods?
- Have all drivers received adequate rest prior to departure?

General precautions and procedures

Check these items yourself or ask the convoy commander.

- Are warning lights on first and last vehicle?
- Is a basic convoy warning kit in each vehicle?
- Are fire extinguishers and first aid kits in vehicles?
- Are vehicles carrying hazardous material marked?
- Do road guards have safety warning equipment?
- Are maintenance, wrecker, and recovery vehicles marked?
- Are accident procedures for the convoy established, to include—
  - ❑ Trail officer designated to supervise care of injured and disposition of damaged vehicles?
  - ❑ Notification of convoy commander, safety officer, and civilian police of accidents?
  - ❑ Reporting of accidents IAW AR 385-40?



SECTION III

Arrival at Port

Seaports are traditionally busy, congested, and confusing places. As the unit's vehicles arrive at the seaport, port personnel will give them a quick visual inspection to identify those with obvious problems. The LOGMARS label will be scanned, and all hazardous and sensitive cargo will be separated out of the main vehicle flow and sent to hazardous and sensitive vehicle staging areas. The remaining vehicles will be sent to other vehicle staging areas, where port personnel will again check vehicles and scan LOGMARS labels. Drivers and assistant drivers will be sent out of the staging areas to an assembly area for transport off terminal.

It is important that vehicles arrive precisely at the time specified in the port-call message and that everyone knows what to do upon arrival. The following checklists should help.

Leader checklist

- Carry enough water for your troops. Estimate one day on terminal, although actual time should be less.
- Explain the unit's terminal control plan to the driving and

supervisory teams, to include—

- ❑ Where drivers and other unit personnel should assemble after parking their vehicles.
- ❑ Water point location.
- ❑ Latrine locations.
- ❑ Trashcan locations for MRE packages, etc.

•Stress unit integrity, NCO control, "don't wander around" philosophy.

•Unit key control officer must make prior coordination with port operators on availability and location of key control NCO/officer. If possible, get a radio from Transportation Terminal Unit to ensure common communications and quick response by key control team.

•Explain how troops will depart the terminal and when and where they will be transported.

•Have a final check team go through the unit's vehicles after all the troops are assembled to check for mistakes, oversights, items left behind, shackles, lights or radios left on, etc.

•Before departing the terminal, perform a rollcall accountability check.

• Allow only essential personnel to enter staging areas while staging areas are filling.

•Do not allow drivers to fill out forms in vehicle staging areas during in-flow of vehicles. Doing so keeps drivers and assistant drivers in these areas while port personnel are trying to flow cargo rapidly into the same area. This mass of troops presents both a safety and a control problem.

•Do not plan to do nesting at the port. Any nesting should be accomplished at the assembly area in the field or at the marshalling area.

•Milvans and conexes must be certified as either hazardous or nonhazardous. This is usually done at the pack-out in the assembly area, where the certifications are put on the conexes and milvans. En route to the port, the certifications sometimes blow off. So, have the unit transportation officer/NCO at port to replace certificates. Otherwise, port personnel will have to open the conex/milvan to determine its classification.

•Personnel who will go aboard the ship during the load-out

will need the following equipment:

- ❑ Pre-boarding ship safety briefing
- ❑ Helmet or hardhat
- ❑ Hearing protection (earmuffs or earplugs)
- ❑ Canteen

Driver checklist

- Keep an alert heads-up focus.
- Turn on driving lights in terminal.
- Use ground guide for all tracked vehicles and when backing vehicles 2½ tons and larger and any other vehicles in which visibility dictates the need. Ground guides should not walk backwards when guiding any vehicle.
- Keep proper distances between vehicles.
- Keep vehicles free from hanging materials such as chains or ropes that could snag on a cleat or tiedown fitting and yank cargo off a truck.
- Report vehicles with maintenance problems to port reception personnel.
- Secure radio whip antennas upon entering terminal. Remove antennas from tracked vehicles and store inside hull.
- Put main gun of tanks and fighting vehicles in travel lock position.
- Obey terminal speed limit (normally 15 mph, or about the speed of a brisk walk).
- Don't leave personal or military items in your vehicle.
- Anything left in the vehicle cab should be wrapped, blocked, and braced inside the cab. Make sure vehicle windows are rolled up.
- Make sure all vehicle locks are locked.
- When driving in the vicinity of the port helipad—
  - ❑ Remember, aircraft have right of way.
  - ❑ Make sure your antenna is down.
  - ❑ Look for ground direction from air traffic control (ATC) personnel.
  - ❑ Proceed only when ATC personnel wave you forward.
  - ❑ Dim your lights.

SECTION IV

Supercargos

Supercargos are teams of soldiers who accompany, supervise, guard, and maintain unit equipment aboard the ship. An essential part of their job is to monitor and correct equipment lashings and tiedowns for security. They also provide key control, note items that cannot be repaired en route, and brief the port commander at the Seaport of Debarkation (SPOD) on vehicle conditions and any peculiar aspects of the cargo.

The size of the supercargo team dedicated to a ship must be consistent with the team's role in guarding and maintaining the equipment en route, the resources available on the ship, and the additional costs required to equip and sustain the team en route. FM 55-65: Strategic Deployment by Surface Transportation is a good reference for supercargo team composition, function, planning, and operations.

The following rules are intended to help supercargos do their job safely and effectively:

Rule #1: The Captain is the ultimate authority on the ship. His or her word is absolute law and must be obeyed by

every individual.

Rule #2: The First Mate is the Captain's right-hand man. If you have a problem, go to the First Mate. Before the ship sails, the First Mate should brief supercargo officers and NCOs on the following:

- General safety requirements.
- Fire and lifeboat drill and stations.
- Life preserver requirements.
- Restricted deck areas.
- Situations requiring immediate notification of the ship's crew (fire, ship taking water, etc.) and what to do in such cases.
- Layout of ship, including emergency escape hatches.
- Whistle signals and their meaning (collision warning whistle, abandon ship whistle, etc.).
- Ship's policy on alcohol.
- Chain of command.
- Call signs for ship's officers (for use when ship's brick-style radios are issued to supercargos).

Supercargo OIC/NCOIC

The following guidance will enable you to perform your job as supercargo OIC/NCOIC safely and efficiently.

- Provide the First Mate a manifest of the supercargo team (full name, rank, SSN, unit, place of birth, and citizenship). Also leave a copy with the Division G1.
- Check with mate before ship sails to verify if additional information is required.
- If the supercargo team has brick-style radios, ensure that there is no frequency interference with the ship's brick-style radios.
- Provide team call signs to mate.
- Ask the mate for the ship's normal schedule for meals and when and where he wants the team to eat.
- Publish a daily, by-name roster of duties and specific locations where the duties will be performed. If a team member does not show up for lunch, you will know where to start looking.

•Start each morning with a safety briefing based on lessons learned from the previous day's activities. Be sure to call on each team member and solicit comments. Encourage the reporting of specific problems (oil or anti-freeze on decks, sharp projections, etc.) or potential problems so corrective action can be taken.

•Brief team members on expected weather conditions for the next 24 hours so they can dress appropriately.

•Establish a buddy system for hold checking and make sure each team going into a hold has a radio and checks into and out of the hold on the supercargo radio net. Record reported discrepancies for next day's briefing and planning of proper corrective actions. DO NOT let supercargo team members go into holds alone without a radio. If the member falls and is injured, he will not be missed until the next team accountability time (breakfast, lunch, supper, etc.).

•Decks in holds are always greasy and slippery. Boots pick up this oil and distribute it on ladders and walkways. Require team members to periodically wash the soles of their boots to remove accumulated grease and oil. In addition, ask the mate if work boots must be removed in crew quarters and mess areas (make sure supercargo team has clean sneakers)..

•An essential part of your duties is to check aircraft and vehicle lashings to make sure they are properly tightened *but not over-tightened.* Find out what the First Mate's standards are, then ask him for a class on how to properly break and tighten the various types of chain tiedowns.

•Make sure you have the correct shipping TM for the aircraft on board and the latest TWX messages on aircraft tiedown procedures.

•Drill your supercargo team on lifeboat and abandon-ship procedures.

•Before boarding the ship, determine which team members can swim. Take only supercargos who can swim.

•Absolutely forbid and ruthlessly suppress horseplay.

•There are many locations on a vessel from which it is easy to fall overboard. Identify these areas through team feedback and soliciting information from the crew.

•As soon as the ship's blowers are turned off, you will hear

vehicles running in each hold. (Longshoremen often forget to shut vehicles off during the loading rush.) It is imperative to check all the holds for running vehicles because—

- They fill the hold with carbon monoxide.
- They will eventually run out of fuel and cause delays during offloading.
- Vehicle ignition sparks and hot exhaust could ignite fumes from another vehicle.

• Pay special attention to vehicles loaded on ramps and on the deck. Not only are the walking areas in these locations treacherous, but also loose lashings and missing chocks could result in losing a vehicle over the side, or having the vehicle break loose on the ramp and hit the ship's watertight doors at the bottom of the ramps.

• Get team members to stow all supercargo gear as soon as possible after consultation with the First Mate.

Abandoning ship

Nobody likes the idea of abandoning ship, but it is sometimes necessary. Preplanned survival procedures increase the chances for successful rescue. Records show that, even in the worst cases, it takes at least 15 to 30 minutes for a sinking ship to fully submerge. This affords valuable time for preparation. The following pointers should be remembered:

• Wear as much warm clothing as possible. Cover head, neck, hands, and feet.

• Put immersion suit on, if you have one, over warm clothing.

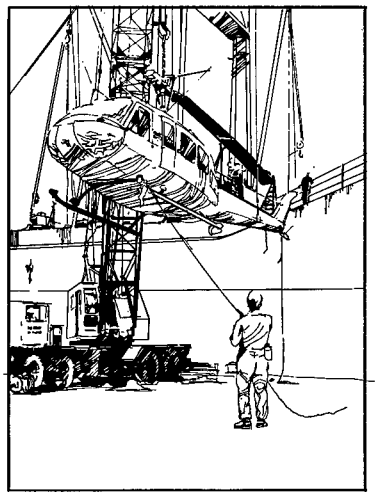
• If prone to seasickness, take preventive medicine in a dose recommended by the manufacturer. Vomiting removes body fluids and makes you more prone to hypothermia.

• If possible, avoid jumping into the water. Climb aboard a davit-launched raft or boat on the embarkation deck. If this is not possible, use pilot ladders or lower yourself into the water by a rope or fire hose.

• If possible, do not jump from higher than 16 feet into the water. Minimize the shock of sudden cold immersion by lowering yourself gradually into the water. If jumping into the water cannot be avoided, keep your elbows at your sides,

and cover your nose and mouth with one hand while holding your wrist or elbow firmly with the other hand.

- Once in the water, locate lifeboats, liferafts, survivors, or floating objects. Violent shivering and pain are natural body reflexes, but not dangerous. However, you must take action as quickly as possible before you lose full use of your hands. Be sure to take precautions such as buttoning up clothing, turning on signal lights, and locating the whistle on your life jacket.
- Swim only to reach a nearby craft, a fellow survivor, or a floating object. Swimming increases the rate of body-heat loss by pumping out warm water between your body and the layers of clothing. Regardless of the intensity of the pain, remain as still as possible. Pain will not kill you, but heat loss can.
- Body position in the water is very important in conserving heat. Float as still as possible with your legs together, elbows close to your side and arms folded across the front of your life jacket. Keep your head and neck out of the water. Huddle closely with other survivors.
- Board a raft or a floating platform as soon as possible. You lose body heat faster in water than in air. Avoid wind chill by huddling close to other occupants.
- Certain drown-proofing techniques (relaxing in the water and allowing your head to submerge between breaths) should not be used in *cold* water. If you are in cold water and are not wearing a life jacket, tread water only as much as necessary to keep your head out of the water.
- Keep a positive attitude about your survival and rescue. The will to live *does* make a difference.



SECTION V

Port to Fort

Operations at a seaport of debarkation can be roughly divided into four parts: (1) ship arrival, (2) offloading, (3) staging of cargo, and (4) departure of cargo from the terminal by road, rail, or air.

Unit movement officers need not wait for ship arrival to determine the unit, type, and condition of cargo on the vessel. The installation transportation officer can contact Military Traffic Management Command and obtain a copy of the vessel load papers, which will describe the cargo on the ship by type, unit, and condition. Hazardous cargo stowage by type and location on the ship will also be listed. Prior planning for the return of the unit's equipment can then proceed properly with safety integrated into each step of the process.

Ship arrival

The key word during this phase is "flexibility." Ship arrival time is approximate. After the ship arrives, it will take time to tie it up. Next, Customs and Department of Agriculture must

inspect the ship and clear the cargo for entry into the United States. Consequently, equipment will not be ready for pickup just as soon as the ship arrives. As a rule of thumb, figure a half to a full day after ship arrival before offload operations will begin.

To help ensure a smoother offload, the unit movement officer should coordinate the following with the port Transportation Terminal Unit:

- Ship arrival time.
- Time when offloading will begin.
- When and where to set up maintenance facilities.
- Messing and billeting facilities at port.
- How much cargo will be returned by rail and when and where rail loading will commence.
- When equipment will be ready for pickup and what procedures will be necessary for equipment out-processing.

The earlier this coordination is done, the better. In addition, the unit movement officer should—

- Plan for a strong maintenance element. Many vehicles will be deadlined and will need the attention of mechanics or recovery equipment to move them off ship.
- Plan to be on terminal when the ship arrives. Bring maintenance teams to get on board the ship to begin pre-offload cargo inspection and repair.
- Determine when and where the port safety briefing will be for driving teams, on-ship maintenance personnel, and soldiers involved in ship-side rail load-out and fly-out operations.
- Determine how many multi-licensed drivers are necessary to offload the ship.
- Bring a Cushman cart type vehicle to help mechanics get their tools and gear around the ship quickly.
- Plan for aviation maintenance support to assist in reconfiguring aircraft for fly-out.

Ship offload

A ship offload operation resembles a cattle drive on the verge of a stampede. This is the most dangerous part of ship

operations. A heads-up attitude is a *must.* Vehicles will be moving out of the ship quickly. Stevedore gangs will be in all the holds unleashing vehicles. Tank engines will fill holds with noise and exhaust fumes, even through the ship's blowers will be operating at maximum capacity. In this busy, hot, noisy, smelly environment, leaders and soldiers must keep safety awareness as a first priority.

PSA team checklist

Leaders should use the following checklist to focus on critical points for the Port Support Activity (PSA) team.

- Begin each day with a "tailgate" session. Solicit seen or perceived hazards from the troops. Do a quick hazard analysis and work with the troops to plan how to avoid the hazards. Then report these hazards to the Transportation Terminal Unit Safety Officer.
- Mentally prepare PSA troops for frustration. A ship offload never goes smoothly. Problems develop, such as immovable vehicles, which cause delays. Prior planning can eliminate most problems, but not all.
- Ground guides on ship are a must. Ground guides are required at the top and bottom of ramps, never in the middle. Make sure drivers know who is the controlling ground guide.
- Control the ship's ramps. Do not let vehicles proceed while personnel are walking up or down the ramp.
- Rotate on-ship PSA troops with off-ship teams to give ship people a break from the noise, hustle, fumes, and heat.
- Check troops aboard the vessel for symptoms of carbon monoxide poisoning (headaches, fatigue, nausea, dizziness, and muscle weakness).
- Tell troops to bring problems to the sergeant's attention immediately.
- Tell troops that if they see ANYTHING LIFE THREATENING to stop operations immediately and radio the PSA supervisor or nearest Transportation Terminal Unit member.
- Caution troops not to walk under operating cranes or suspended loads.

•Enforce no-smoking rules. (Smoking is allowed only in designated areas.)

Aircraft offload

For aircraft offload operations, the Transportation Terminal Unit should notify the supporting post aviation officer that aircraft will be offloaded and request the following support:

- Aviation maintenance battalion.
- Aviation safety officer inspection of proposed port helipad, maintenance area, and port for hazards.
- Air traffic control for temporary port helipad to include publishing a NOTAM.
- Sufficient aviation personnel to ensure vehicle control in the vicinity of the port helipad.

Staging of cargo

This phase of the operation occurs simultaneously with the offload phase. Cargo is parked by unit in the road-march staging area and by type and trainload in the rail staging area. Vehicle flow into the staging areas is rapid, but the Transportation Terminal Unit will have laid out the staging areas, and ground guides will direct vehicles into the proper lanes. PSA leaders should—

•Make sure that plenty of drinking water is available in each staging area and that troops drink water frequently. Also, remind troops to use the buddy system to watch for heat injuries.

•Request Transportation Terminal Unit assistance if moving unit personnel begin to filter into the working staging area. The last thing PSA drivers need is a gaggle of unit drivers milling around in a staging area while cargo is rapidly flowing into the area.

•Make sure shuttle vehicle drivers are focused on safe movement of PSA drivers, *not* speed. If a pickup truck is used as a shuttle vehicle, ensure troops sit on the floor of the truck bed, not the sides.

Departure of cargo

It is only after port of debarkation staging areas are filled that convoy commanders should put their drivers into the staging areas. To attempt to do so before the staging area is complete presents a safety hazard due to the rapid filling of the area with offloaded cargo at the same time that larger numbers of drivers and assistant drivers are milling around looking for specific unit vehicles. Also, Transportation Terminal Unit reception teams must scan LOGMARS labels for accountability of all Army vehicles.

The staging area is not the place to reconfigure convoys for road march. Convoy commanders should coordinate with the Transportation Terminal Unit for the location of an area to form up in road-march sequence. In addition, prior to departure, convoy commanders should ensure that every driver and leader receives a road-march safety briefing (see convoy checklist in Section II).

Rail load-out will begin as soon as the train arrives and the cars are placed on the siding. Use the following checklist for rail load-out operations.

Rail operations checklist

- Does the ramp OIC ensure all vehicles are inspected before loading (brakes, lights, turn signals, and fire extinguishers)?
- Are windows and windshields covered with cardboard to prevent damage from rocks, etc.?
- Have loading teams been instructed in the following before-loading procedures?

❑ Inspect all cars for serviceability. Report defects to PSA or Transportation Terminal Unit operations officer.

❑ Remove rocks, leaves, and other trash from rail car channels so chain anchors will slide freely.

❑ Pull all chains needed for tiedown out of the channels and slide the chain anchors along the bottom of the channel to required locations.

❑ Turn the turnbuckle body until the threaded ends are fully extended.

❑ Lubricate the turnbuckle threads and eyebolts with "Rust Veto" corrosion preventive compound or equivalent.

❑ Lay all turnbuckles to point inboard toward the center of the car.

• Have personnel involved in vehicle loading/unloading been briefed on the following?

❑ Vehicles must be driven only by qualified drivers.

❑ Vehicles must not be mounted or dismounted while in motion.

❑ Personnel must not ride on vehicles that are being loaded or unloaded.

❑ A ground guide must be used during all loading and unloading operations.

❑ The ground guide must maintain one rail-car length from the vehicle being ground guided and must *never* walk backwards while ground guiding.

❑ Tank turret main guns must be in the aft travel position and lowered into the saddle block.

❑ All vehicle antennas must be removed or tied down, as appropriate.

• Are the following tiedown procedures followed?

❑ Inspect each chain assembly for breaks, cracks, gouges, open welds, or deformed components. Remove from use any that have defects.

❑ Inspect the connector link that attaches the chain to the anchor fitting. If defects are found, replace the chain and/or fittings.

❑ Compare an eight-link segment next to the turnbuckle end of the chain with an eight-link segment near the hook fitting at the load attachment end of the chain assembly. If the eight-link near hook fitting is ½ inch or longer than the eight-link near the turnbuckle end, the chain has stretched beyond normal limits and should be REPLACED.

❑ If the chain assembly and components are free of apparent damage, attach shackles or rings, as required.

❑ Pull chains as tight as possible by hand before hooking into the grab hook. (Chains must not be kinked or twisted.)

❑ Hand tighten turnbuckles, then continue to tighten them with a 1½-inch open-end wrench or a 15-inch crescent

wrench. Tighten front and rear tiedowns at the same time so equal tension on all tiedowns will be maintained.

- ☐ Tighten turnbuckles until 1/8 inch of the rubber pads in the compression unit shows between the metal rings.
- ☐ After tiedowns have been tensioned, lubricate exposed turnbuckle threads and jamnuts.
- ☐ Secure the load attachment hook end of the chain assembly so it cannot swing free.
- ☐ Unused chains, shackles, and rings must be secured to the flatcar so they cannot become free.

• Have load teams been instructed to—

- ☐ Wear safety shoes?
- ☐ Not lie on, under, or between rail cars?

• Have load teams been instructed in the following unloading procedures?

- ☐ Use lubricant to help loosen jamnuts.
- ☐ Place chain assemblies in the center of the rail car.
- ☐ Leave tiedowns, shackles, and rings securely stowed on rail car.