UMO

DEPLOYMENT HANDBOOK

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SECTION I. GENERAL.

The Unit Movement Officer (UMO) is the commander's appointed representative and assists the commander in preparing the unit for movement. The UMO must know the unit's mission and the commander's intent when preparing the unit for deployment, so appropriate coordination, planning, and execution can take place. The UMO will assemble and maintain unit movement plans and documentation, prepare the unit for movement, create the unit's equipment list, and supervise the out load of the unit.

Unit movement personnel must prepare for any contingency. Detailed unit movement planning; coordinating, training and testing the plan; and efficient execution of the unit move are vital for successful deployment. Many variables may require changes to plans and data, so the UMO must be technically proficient to meet the changing demands.

UMO proficiency will not only enhance unit readiness, but expedite response time in a crisis...Time that is critical to project the proper force. The UMO must focus on thorough planning, coordination, training, and execution of unit deployment procedures.

A. UNIT MOVEMENT PLANNING.

It is the unit commander's responsibility to review and update unit movement plans and SOPs. However, each member of the unit should know the duties and activities required during movement. The Commander appoints a UMO to help in prepare the associated SOPS, movement plans, and battle books.

The unit readiness SOP (RSOP) defines each section's preparatory duties and responsibilities required to bring the unit to a heightened state of readiness. It should be written generic enough to fit any situation and outline day-to-day, as well as, alert functions. Each section's duties are normally written in separate annexes, which can be easily separated and issued to the proper leader for execution.

The unit movement plan defines specific responsibilities, functions, and details for each part of a unit move from origin to port of embarkation (POE). Write the plan for each separate move the unit will make, such as: mobilization, deployment, exercises, and change of station. The plan requires considerable coordination, and support from all levels of the chain of command.

The battle book is a comprehensive document the commander uses to accomplish the unit's reception and mission in the theater of operations. The battle book is normally classified and includes the unit mission, organization, locations (including photos and overlays), and extracts from the OPLAN.

The Commander or UMO may also maintain a movement binder. Normally the movement binder will consist of easy to use information, such as:

- Appointment orders and training certificates for UMO's and alternates, load teams, and personnel qualified to certify hazardous material documents and air load plans.
- Recall roster and instructions.
- Reference listings.
- Sample forms and documents for support during movement.

- Coordination requirements for plan execution and a list of supporting agencies and points of contact.

- Copy of unit RSOP.

- Instructions for other actions unique to the organization.

- Extracts of unit movement plan detailing initial actions to be taken during a deployment (X and N-Hour sequence).

- Current copy of the AUEL.

- Copies of all load cards and container packing lists.

- Copies of supply requisitions associated with the deployment.

- Prepared copies of transportation requests, convoy movement requests and special hauling permits.

- Strip maps for each route of march the unit will make.

- Advance party composition and instructions.

- Other check lists or handbooks developed by the unit to assist in movement planning and execution.

Twelve recommended steps to movement planning:

STEP 1 IDENTIFY UMO/UMNCO - To include required movement and load teams. Prerequisites for UMO's are retainability, secret clearance, and movement training. Training is a responsibility of the intermediate command level UMO and transportation officer (TO).

STEP 2 IDENTIFY WHAT NEEDS TO BE MOVED - Based upon mission requirements (METT-T) and command guidance, planning Ernst reflect personnel, equipment, supplies, and how the unit will accomplish the move.

STEP 3 IDENTIFY EQUIPMENT NEEDED TO ACCOMPANY TROOPS(TAT) - Items requiring accessibility enroute (YELLOW TAT), items needed immediately upon arrival (RED TAT), and items that do not need to accompany troops (NTAT).

STEP 4 IDENTIFY HAZARDOUS MATERIAL - Transport of hazardous materials requires proper segregation, packing, marking, and documentation.

STEP 5 IDENTIFY WHAT NEEDS TO MOVE BY AIR - Advance party personnel and equipment requirements can be found in the OPLAN. Remaining personnel normally move with the main body, also consider TAT items.

STEP 6 DEVELOP VEHICLE LOAD PLANS - Equipment moved in or on unit vehicles must be annotated on a vehicle load card, and in the automated unit equipment list (AUEL).

STEP 7 IDENTIFY BULK CARGO REQUIREMENTS - Record equipment and cargo requiring palletization/containerization on packing lists. Plan for material handling equipment (MHE) and additional transportation assets.

STEP 8 IDENTIFY BLOCKING, BRACING, PACKING, CRATING, AND TIEDOWN (BBPCT) REQUIREMENTS - Internal vehicle loads and container loads must be blocked and braced.

STEP 9 REPORT UNIT MOVEMENT REQUIREMENTS - Personnel and equipment data are translated into transportation terminology as unit movement data (UMD) and recorded on the ADEL.

STEP 10 DETERMINE MODES TO THE PORT OF EMBRKATION - Transport modes are identified for movement to the port of embarkation (POE) for personnel and equipment. Wheeled vehicles will normally convoy when distances are less than one day drive (<400 miles), tracked vehicles will move via commercial rail, truck, or inland water, Army aircraft normally self-deploy to the POE.

STEP 11 DEVELOP THE UNIT MOVEMENT PLAN - Determine administrative, logistical, and coordinating requirements for the plan. The movement plan is format with appropriate annexes.

STEP 12 MAINTAIN THE MOVEMENT PLAN - Update planning elements and UMD annually or as changes occur.

B. UNIT MOVEMENT DATA

Unit Movement Data (UMD) must be prepared as accurately as possible. Most of the UMD, used in planning, can be found in TB 55-46-1/2, Standard Characteristics for Military Vehicles and Other Outsized/Overweight Equipment.

After units collect their UMD the information is entered in the Transportation Coordinator - Automated Command and Control Information System (TC-ACCIS). The TC-ACCIS is an information management and data communication system used by deployment planners to report unit equipment lists and conduct deployment planning and operations. The system automates most of the unit deployment functions such as:

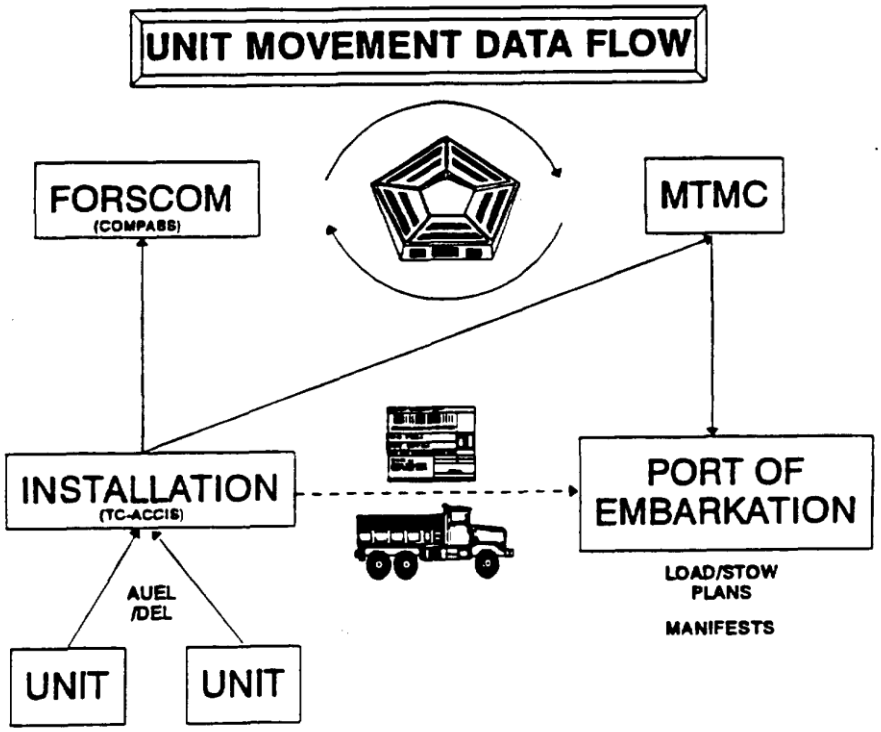
- Maintain unit equipment lists (AUEL/DEL).
- Transmit UMD to deployment planners.
- Prepare vehicle load cards.
- Prepare convoy documentation and march tables.
- Prepare rail load plans.
- Prepare blocking and bracing materials list.

Actions that may cause delays throughout the movement include: inaccurate unit movement data (vehicles improperly reported or not reported on the AUEL), inaccurately identified hazardous materials, or a lack of planning and coordination. These delays may disrupt the flow of vital forces and supplies to a theater of operations.

During predeployment activities units maintain the AUEL data using TC-ACCIS. The AUEL data is the same information used to allocate aircraft, ships, and other common user transportation assets. FORSCOM requires commanders to validate AUEL information annually or as changes occur. Experience shows this is an ongoing activity requiring constant attention.

UMD is sent to FORSCOMs Computerized Planning and Status System (COMPASS). COMPASS will produce an ADEL and maintain the information for use during planning and deployment. On notification of deployment UMD is sent to Military Traffic Management Command (MTMC) for ordering railcars and

producing ship stow plan. Additionally, UMD is maintained to produce aircraft load plans.



SECTION II. EQUIPMENT PREPARATION STANDARDS.

Preparation of equipment is a unit responsibility. This process is completed in the unit marshaling area under the direction of the UMO and the unit's chain of command. Vehicles are cleaned, loaded, and reduced to the required deployment configuration. Every effort should be made to conform to the commander's guidance in support of the concept of operations. Man-hours spent configuring, then reconfiguring equipment at both ends of the move can adversely impact the mission.

Depending on the mode of lift for deployment, full reduction may or may not be necessary. When preparing equipment for transport, unit personnel must ensure equipment conforms to clearance and space restrictions established in the port call message. Normally units configure vehicles as reduced for the type of transport used. At a minimum all mirrors are folded in, and antennas are removed. Any other items may be reduced at the discretion of the commander.

Built-up vehicle shelters must be removed and cannot be moved on vessels or commercial conveyance without prior MACOM approval. These types of vehicles typically have overhead clearance problems along rail lines and in aircraft or vessel compartments. When authorized by the MACOM, shelters may stay in place; however, contents must be documented and dimensions must be accurately reported on the AUEL.

A. VEHICLE PREPARATION CHECK LIST

• Thoroughly clean equipment, remove all dirt and oil.

• Ensure vehicle is mechanically sound, free of leaks, drips, and other operational defects.

• Stencil vehicle in 2 inch letters, with the UIC and shipment unit number (SUN) on the front bumper and left door, or left side of vehicles without doors.

• Check fuel levels.

- Vehicles 3/4 full.

- Trailer mounted equipment 1/2 full.

Five gallon fuel cans (diesel) 3/4 full, when carried in approved storage racks, otherwise empty. Inspect fuel cans for lid gaskets, leaks, and other defects.

• Remove and secure sensitive/classified items.

• Remove and consolidate hazardous materials when practical. Vehicles loaded with acetylene and oxygen cylinders must be stowed on the weather deck of a vessel otherwise, load cylinders on a pallet for separate shipment. Mark cylinders with the UIC and vehicle SUN except replace the MDU with an "E" (e.g. WABCAB E1234).

• Reduce vehicle length, height, and width by folding in mirrors, removing storage baskets that overhang fixed dimensions, and removing antennas.

• Reduce height as needed for clearance enroute to the POE.

• Secure ignition keys to steering wheel with wire.

• Secure rotating parts to prevent them from moving.

• Ensure all vehicles and trailers are equipped with serviceable Tiedown devices or shackles. Remove "T Hooks" from combat vehicles; replace with screw pin shackles.

• Protect radios and other electronic components on vehicles to prevent corrosion damage. Cover with plastic then secure with lock and chain; or remove and containerize.

- Box and/or store on-vehicle equipment (OVE). When possible ship with vehicle in locked OVE box.

- Do not cover headlights, reflectors, windshields, or mirrors with tape, this does little to protect from damage and becomes a safety hazard during loading operations.

- If required for height reduction, lower cab assembly. Keep the cab canvas threaded through the windshield channel. Fold down the windshield with the canvas wrapped over the windshield and secure with 1/2 inch manila rope. Other degrees of protection are at the unit commander's 5 discretion (e.g. cardboard or plywood).

- Ensure vehicle loads are properly tied down and documented. Secondary load items should be marked with the UIC and modified vehicle SUN as stated earlier.

- Ensure Military Shipment Labels (DD Form 1387) are properly placed on equipment. Left, front bumper and on the left door or in a similar location on the left side.

- Do not remove items such as seats from vehicles that are necessary for driving.

B. MILITARY SHIPMENT LABEL PLACEMENT.

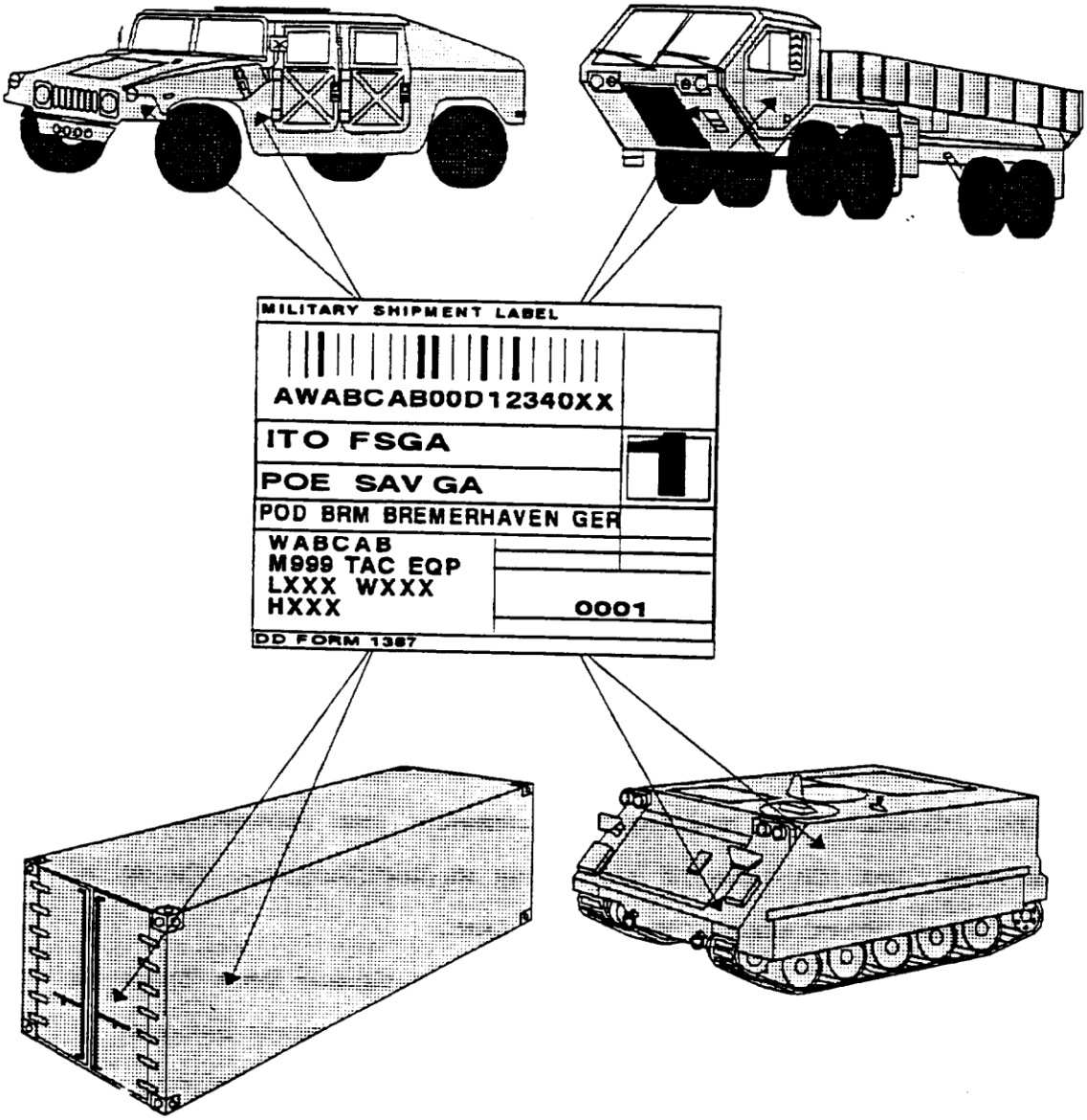


Figure II-1. MSL Placement.

SECTION III. GENERAL CARGO AND LOADING PRINCIPLES.

A. CONTAINERIZATION.

Containerization of cargo can take many forms, such as the internal slingable unit (ISU), 20' MILVAN, and commercial 20’ and 40’ shipping containers. UMO’s should be familiar with the different types of containers so they select the right one.

Considerations when selecting a container include the characteristics of the cargo to be shipped, material handling capabilities, and means of transporting the container. Unit equipment is qualified for containerization based on interior container length requirements, door opening dimensions, and container weight capacities. Once the container is received by the unit, it should be inspected for holes, severe dents, faulty doors, damaged lifting points, and structural defects. Any problems should be reported to the TO.

The UMO then begins planning the load, taking into consideration use of container cube capacity, distribution of weight, blocking and bracing requirements, and documentation. Plan each load for ease of unloading at destination. Cargo to be stripped first should be loaded last.

Pack the load so that it is tight and square from front to back and from wall to wall. Block and brace spaces between cargo and container walls to prevent the load from shifting. Once loaded, lock the container and place a serial numbered seal on the door, then record the seal number on the packing list.

General rules to follow when loading containers are:

- Equalize weight distribution throughout.
- Place heavy and wet material on the bottom with light and dry material on top.
- Cargo that can be damaged by water or pose a leak hazard, should be stored on dunnage of f of the floor.

- Block and brace doors at least six inches back to prevent the load from falling out when doors are opened.
- Stow hazardous cargo by the doors of the container.
- Document container load and seal number on packing list.

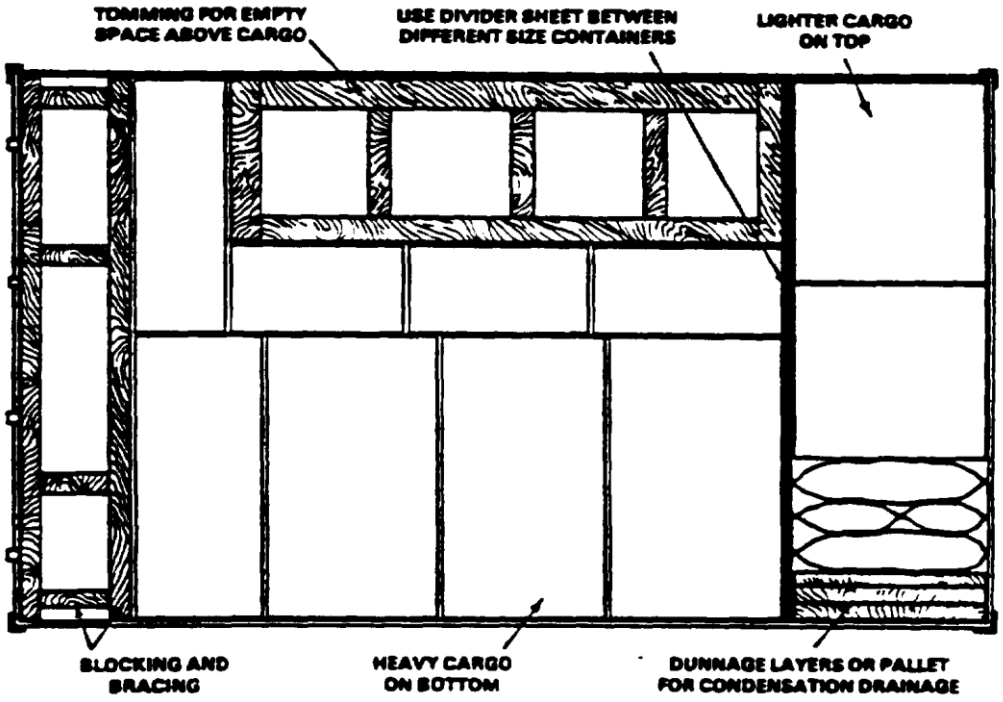


Figure III-1. Distribution of loads in containers.

Methods for securing vehicles in containers depend on the type and size of vehicle being shipped. However, the following general rules apply:

- Prepare vehicles as outlined in Section II.
- Vehicle fuel levels cannot exceed 1/4 tank.
- Place vehicles in gear with the hand brakes set.
- Disconnect batteries and secure terminal cables.
- Chock or cradle vehicle wheels on all four sides to prevent lateral and lengthwise movement.
- Secure vehicles to the floor of the container with cable or chain Tiedown if moving by rail at any time

- Placard container appropriately when enclosing a vehicle with fuel in the tank.

- Document container load and seal number on packing list.

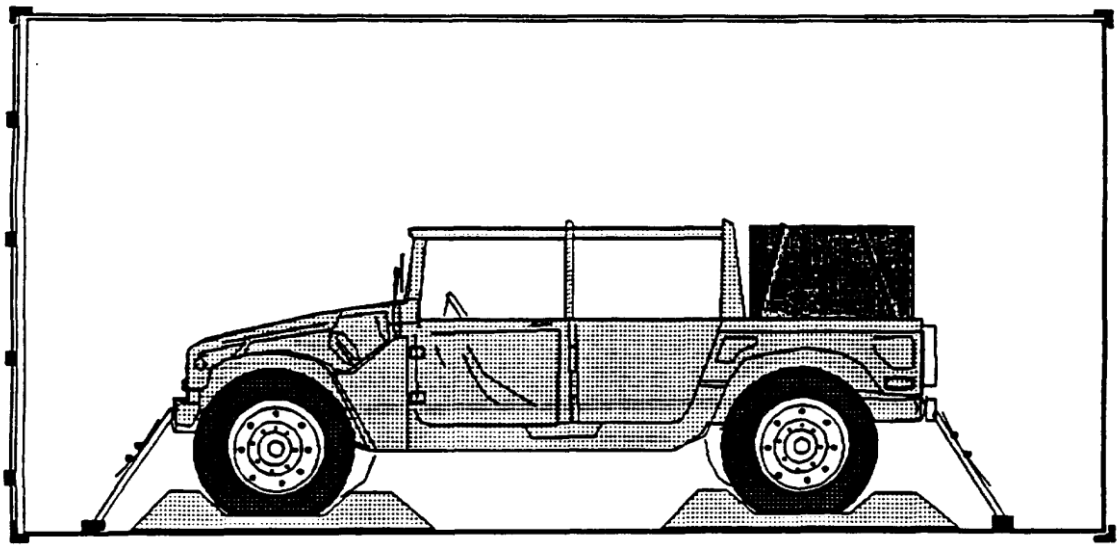


Figure III-2. Vehicle loaded in container.

B. VEHICLE LOADS.

When loading vehicles, cargo should be distributed uniformly throughout the payload area. The load should be configured as symmetrically as possible along the centerline of the vehicle. Failure to do so can make the vehicle unstable and difficult to control. General rules to follow when loading vehicles are:

- Maximize use of all vehicle cargo space.
- Do not exceed vehicle payload capacity.
- Protect against metal to metal contact by placing plywood or dunnage between the cargo and the bed of the vehicle.
- Protect cargo from weather damage.
- securely restrain all cargo; do not use Tiedown points to secure loads.
- Weigh and document the load on the load card and AUEL.

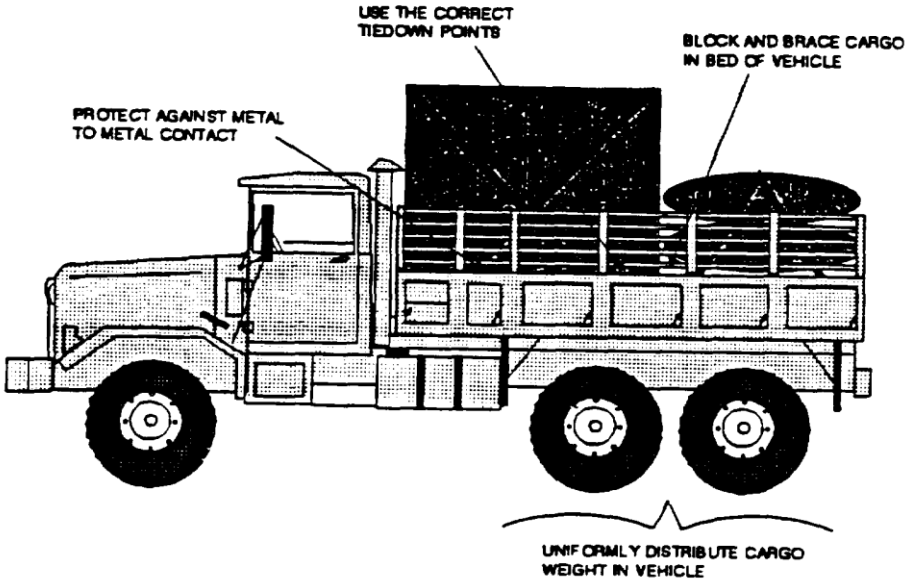


Figure III-3. Load placement in trucks.

SECTION IV. INSTALLATION STAGING AREA.

Units prepare for deployment; equipment is called forward from unit marshaling areas or motor pools to an installation staging area (ISA) (Figure IV-1). The ISA is a centralized location where deploying units assemble their equipment for continued movement to the POE. It is inspected and staged by the installation according to mode of transportation.

The installation is normally responsible for the operation and organization of the ISA, but may be augmented by unit teams from a Deployment Support Brigade (DSB), and/or a "pusher unit". The installation provides command and control of the ISA by establishing a control center, flow plans to monitor unit movements, and validation of unit equipment preparations.

Upon arrival at the ISA units are sequenced by equipment type. Items are then inspected for cleanliness, serviceability, proper shipping configuration, documentation, fuel levels, Tiedown shackles, and other items deemed appropriate by the commander. Any item that fails to meet the standard is placed in a holding area until deficiencies are corrected and the item is reinspected or replaced. When the established preparation standards are met, the equipment is sequenced for loading according to mode of transport or convoy.

Prior to leaving the ISA each unit will update their AUEL with actual equipment weights, dimensions, and loads, resulting in the deploying equipment list (DEL). The DEL is the document deployment planners use to stow/load plan vessels and aircraft, so accuracy is very important.

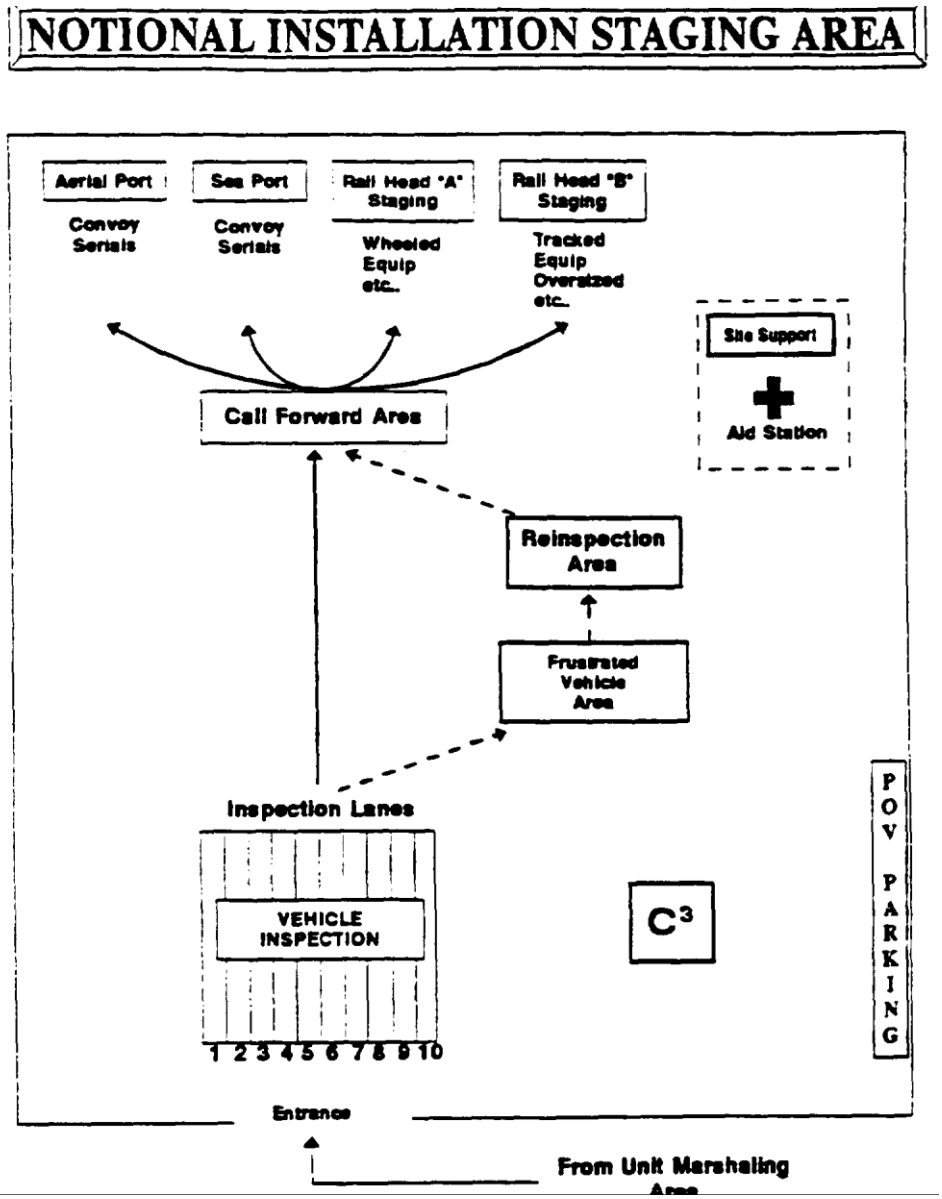


Figure IV-1. Notional Installation Staging Area.

SECTION V. CONVOY OPERATIONS.

Generally, units moving wheeled vehicles located within one day road march will convoy. When the unit convoys it must obtain an approved convoy clearance to travel over public highways. Other considerations and requirements for convoy planning and execution are listed in this section.

A. CONVOY PLANNING CHECK LIST.

Identify Vehicles.

- Number and type of vehicles and trailers to convoy.
- Vehicles requiring special hauling permits.
- Vehicle capabilities (speed and range).

Identify Personnel.

- Convoy, serial, and march unit commanders.
- Pacesetter, trail officer, and others as needed.
- Licensed drivers and assistant drivers.

Organize the Convoy.

- Number and composition of serials and march units.
- Identify vehicle and march element gaps (intervals).
- Determine convoy control measures.

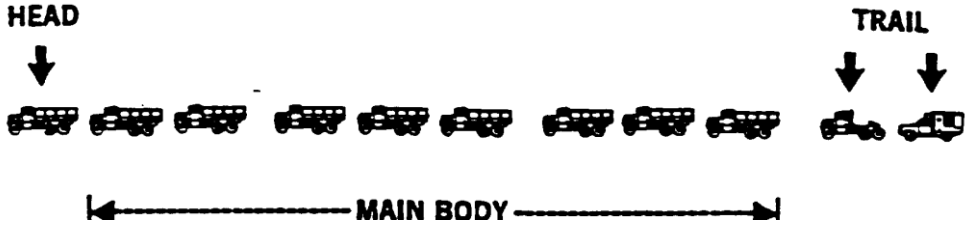


Figure V-1. Convoy Elements

Determine Route and Travel Times.

- Select route; conduct reconnaissance (map, air, ground).

- Identify critical areas or check points along route (start point, congested areas, halts, and release point).

- Determine convoy speed for each route segment.

- Prepare strip map.

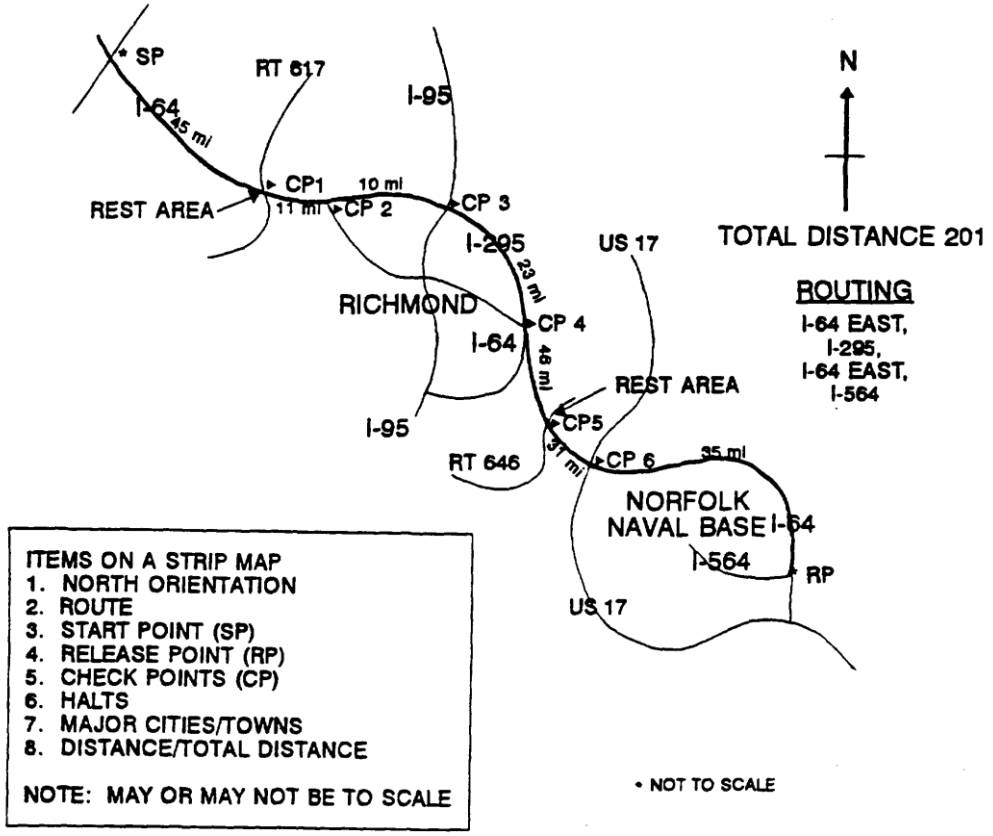


Figure V-2. Strip Map.

Identify Support Requirements.

- Determine logistics requirements for each class of supply and service needed enroute.

- Plan for maintenance and recovery procedures.

- Determine escort requirements.

- Identify safety equipment (fire extinguishers, first aid kits, highway warning kits, warning lights, etc).

- Prepare and submit convoy request and special haul permit.
- Identify required documents (accident reports, vehicle dispatches, load cards, etc).
- Prepare convoy movement order.

Determine Convoy Communications.

- Identify communications equipment and methods.
- Establish vehicle identification procedures.

Lead vehicle sign CONVOY FOLLOWS

Trail vehicle sign CONVOY AHEAD

Command vehicle sign CONVOY COMMANDER

Lead vehicle flag (blue) NSN 8345-00-543-6912

Trail vehicle flag (green) NSN 8345-00-543-6913

Commander’s flag (black/white) NSN 8345-00-543-6911

Flagstaff attachment NSN 8345-00-242-3650

Rotating amber warning light NSN 6220-00-947-7570

Magnetic mount amber light NSN 6220-01-019-7406

B. VEHICLE DIMENSION RESTRICTIONS.

Dimension and weight limitations on vehicles vary greatly. Check with the supporting TO for local rules and restrictions prior to any military convoy. However, for gross planning purposes, vehicles are normally considered over dimensional or overweight if they exceed any of the following:

Width 96 inches (not including mirrors)

Height 162 inches (13 feet, 6 inches.)

Weight 20,000 pounds for single axles

34,000 pounds for tandem axles.

80,000 pounds for gross weight

Length 35 feet for single vehicles

55 feet for vehicle/trailer combinations

D. CONVOY COMMANDERS CHECK LIST.

Ensure That Vehicles are Ready to Move.

- Preventative maintenance checks and services (PMCS) completed and deficiencies corrected for each vehicle.
- Check vehicle fuel levels.
- Check for required on vehicle equipment (OVE) items.
- Vehicles carrying hazardous materials must be properly documented and marked.
- Ensure vehicles are properly loaded and configured, cargo canvas is properly tied down and secure.
- Vehicles carrying soldiers must have troop strap in place.
- Maintenance and recovery vehicles have proper equipment.

- Vehicles display convoy clearance numbers.
- Convoy signs and flags are properly mounted and secure.
- Check vehicle dispatches.
- Safety equipment present and serviceable.
- Headlights on low beam.
- Lead, trail, and oversize/overweight vehicles (including wreckers) have rotating amber warning lights or 4-way flashers

Ensure Personnel are ready to Move.

- Drivers possesses valid operator’s permit for their vehicle.
- Personnel are in proper uniform and have appropriate gear.
- Drivers and assistant drivers have had 8 hours of rest in previous 12 hours.

Ensure the Required Documents are on Hand.

- Approved road movement order/OPORD.
- Strip map detailing routes, start point, check points, release point, distances, major cities/towns, rests/halts, and general direction of North.
- Forms for reporting convoy progress, accidents, etc.
- Directories and phone numbers for logistic support, recovery, medical, and other points of contact.
- Convoy purchase documents for tolls, fees, meals, etc.

Convoy Briefing.

- Issue strip maps and orders to drivers and vehicle commanders, brief all items on strip map.
- Identify convoy organization and vehicle assignments.
- Departure and arrival times.
- Convoy speeds and vehicle intervals.

- Weather forecast and actions during inclement weather.
- Procedures during halts (vehicle maintenance and security)
- Safety during movement and at halts.
- Security of sensitive and classified items.
- Maintenance and recovery procedures.
- Accident and emergency procedures.
- Convoy signal and communication procedures.
- Reporting procedures within convoy, to higher headquarters, and with local officials.
- Chain of command and locations.

SECTION VI. RAIL LOAD OPERATIONS.

Rail is often the preferred mode of transport because it is less expensive and faster than other means of moving large forces. This section provides unit movement personnel with the essentials for planning, loading, and securing vehicles and equipment on chain equipped railcars. When any doubts arise, unit movement personnel should consult the TO or railroad representatives for clarification.

A. RAIL SITE PREPARATION.

First prepare the rail site ensuring the area is clean, free of debris, and well lit. Then position the train, set railcar brakes and lower brake wheels, then chock railcar wheels to prevent shifting during loading. Inspect railcars for cleanliness and serviceability. Additional site preparation may take place in the form of command and control facilities, warming tents, medical aid stations, and when present, overhead electric wires turned off.

Inspect and position chain tie downs on the railcar decks to avoid having to reposition chains after loading vehicles. Store unused chains in the channels to prevent damage. Place spanners between railcars when loading wheeled vehicles. As a general rule, at least 12 inches of the spanner should overlap the railcar deck. Most tracked vehicles do not require the use of spanners when rail loading.

C. RAIL LOAD CHECK LIST.

• Appoint a railhead OIC familiar with all applicable rail loading and safety procedures.

• Inspect railcars for serviceability and cleanliness, (debris rocks and dirt removed, etc).

• Inspect railcar Tiedown devices for serviceability.

• Prepare railcars for loading, (hand brakes set, wheels chocked, spanners emplaced, chains positioned, etc).

• Turn off overhead power lines, if required.

• Ensure sufficient lighting is available at the railhead.

• Provide soldier support facilities, if required, (warming tent, latrine, mess area, etc).

• Ensure a qualified medical aid team is standing by.

• Prepare all vehicles prior to loading.

-Configure vehicles as outlined in Section II.

-Secure moveable vehicle parts with wire cable, (gun barrels - 3/8 inch, wrecker booms - 3/8 inch, and ramps on Mll3 family of vehicles - 1/2 inch).

- Ensure vehicles have the proper Tiedown shackles.

- Properly sequence vehicles for loading.

• Ensure Tiedown teams have the proper equipment, (work gloves, breaker bars, wrenches, pliers, ratchets, etc).

• Provide sufficient numbers of railcar guides.

• Designate a railhead safety officer.

• Brief all soldiers on rail operation hazards.

- Do not ride in or on equipment while train is moving.

- Do not touch wires, poles or switches.

- Do not jump off railcars.

- Never walk between railcars.

- Do not walk backward on railcars.

- Do not move a vehicle without a guide.

- Ensure guides have at least one railcar distance between themselves and a moving vehicle.

• Guide vehicles into position, place transmissions in neutral, set parking brake, and turn off ignition. Ensure battery switches are in the "off" position.

• Follow Tiedown procedures.

- Inspect chain assemblies and components.

- Apply chains in pairs and in equal numbers to the vehicle Tiedown points.

- Secure chains through Tiedown points at a 45° angle.

- Pull chains as tight as possible, ensure there are no twists or kinks, and secure chain hook to chain.

- Hand tighten turnbuckles first, then continue to tighten with open- end wrench or crescent wrench, until 1/8 inch of the rubber compression ring shows. Leave approximately one inch of deflection in the chain.

Store unused chain assemblies in the railcar channels.

SECTION VII. PORT OF EMBARKATION OPERATIONS

A. SEAPORT OF EMBARKATION.

When units arrive at the seaport of embarkation (SPOE), equipment may pass through a port marshaling area near the SPOE. The marshaling area is used to reduce the amount of traffic and congestion within the terminal area and is the final enroute location for unit equipment preparation. Since the SPOE marshaling area is not always used or available, units should be prepared to move directly into the port, staging area.

The staging area is where the Transportation Terminal Brigade (TTBde) or port commander assumes control of the cargo. Its mission is to conduct terminal operations, receive, and oversee the load/discharge and transshipment of cargo. Supporting installations or commands normally provide a provisional unit to augment the port, called a Port Support Activity (PSA). The PSA is under the operational control of the port commander and prepares the staging area for the receipt, inspection, preparation and repair of equipment, perform aircraft fly-in operations, and establish traffic control.

In support of CONUS force projection operations MTMC may use a Tiger Team to temporarily operate an SPOE until the TTBde is fully operational. When alerted, the Tiger Team deploys to the SPOE to set up operations, coordinate contracts, and begin receiving cargo. Command authority remains with the team until the TTBde commander or representative arrives.

As the vessel readies for loading, equipment is moved from the port marshaling area or installation to the staging area. On arrival, units will be directed to the port staging area and the port commander will assume control of the equipment. Military shipment labels affixed to equipment will be scanned using bar code readers. Equipment is inspected for serviceability, packing lists/load cards, accuracy of dimensions and weights, properly secured secondary loads, and documentation of any cargo requiring special handling.

When processed, equipment may be segregated into different lots within the staging area by type, *size,* and any other special considerations such as: hazardous materials, sensitive and classified items, and containerized

equipment. Vessel stow plans are then prepared and used as a guide to call vehicles forward and load the ship.

As loading operations commence, equipment is called forward from the staging area based upon the stow plan, where it is assembled by the PSA, then moved to the loading (ramp) area adjacent to the vessel. Deploying equipment may load via the roll-on/roll-off ramp or be lifted onto the vessel. Shipment labels will continue to be scanned once inside the vessel and their stowage positions documented for the preparation of the ship's manifest. Once the equipment and cargo are loaded and properly secured aboard the vessel a ship's representative will accept and sign the final manifest.

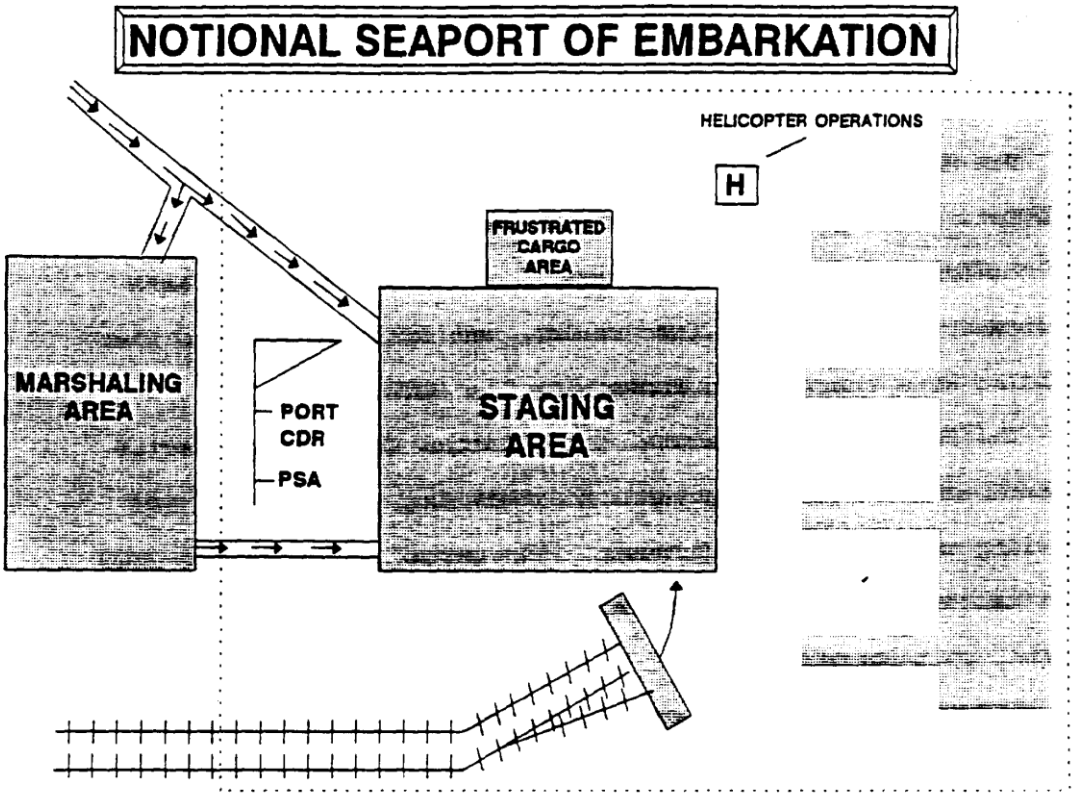


Figure VII-1. Notional SPOE.

B. AIRPORT OF EMBARKATION.

Aerial ports of embarkation (APOE) require close coordination between many participating units and interservice activities. The Air Mobility Command (AMC) exercises overall control of airlift operations and resources at APOEs. Resources of the deploying unit are initially under the control of the deploying unit commander. Control passes to the departure airfield Control group (DACG) and then to the AMC.

The deploying unit prepares equipment for air movement, conducts initial and joint planning sessions, provides liaison to the DACG, appoints chalk leaders, assembles and manifests equipment and personnel into chalks, and delivers them to alert holding area when called forward by the DACG.

The DACG is a provisional organization designed to assist the AMC and the deploying unit in receiving, processing, and loading personnel and equipment. The capabilities of the DACG are tailored based on the mission and military units performing aerial port operations.

AMC provides airlift support through the airlift control squadron (ALCS). The ALCS deploys a tanker airlift control element (TALCE) to the APOE to conduct airlift operations, including aircraft and ground support. It is responsible for aircraft movement control, communications, technical supervision of loading, and aircraft marshaling.

Departure airfield operations are outlined in four Separate areas of activity: the unit marshaling area, the alert holding area, the call forward area, and the ready line/load ramp area.

- Unit marshaling area activities are the responsibility of the deploying commander. The marshaling activities may take place within the deploying unit’s motor pool or in an area located on or adjacent to the APOE.

- The alert holding area is the equipment/vehicle and passenger control area. It is normally located on the departure airfield. It is used to assemble, inspect, hold, and service aircraft loads in chalk configuration. Control of the chalk is transferred from the individual unit to the DACG at this point.

- The call forward area is usually located close to the ready line/load ramp area. It is where the joint inspection is conducted by the DACG and TALCE. A final briefing is provided to the deploying troops and the TALCE reviews all manifests for accuracy. The deploying unit will correct all discrepancies found during the joint inspection.

- The ready line and load ramp areas are controlled by the TALCE. Aircraft chalks are staged at the ready line until they are loaded. Aircraft are parked and loaded in the load ramp area by TALC personnel, with the assistance of the DACG and the deploying unit.

The deploying unit responsibilities include:

- Establish liaison with the DACG and other activities as agreed during the joint planning conference.

- Perform final preparation of vehicles and equipment, including weighing and marking equipment.

- Ensure that adequate shoring material is on hand.

- Assemble personnel, supplies, and equipment into aircraft loads (chalks) according to established load plans.

- Ensure that the chalks arrive at the alert holding area at the time specified by the air flow plan.

- Provide the DACG with passenger/cargo manifests, certified air load plans, and any other required documentation.

- correct load discrepancies identified in the alert holding area by the DACG and correct air load plans.

- Pass control of passenger/cargo to the DACG in the alert holding area.

- Ensure planeload or troop commanders are appointed and properly briefed on their responsibilities.

The Army troop commander or chalk leader will:

- Follow directions of load team chief or passenger escort.

- Monitor and control passengers in the chalk.

- Retain one copy of the final passenger/cargo manifest.

• Ensure that equipment operators remain with their equipment and follow the instructions of the load team chief or primary load master.

The DACG responsibilities include:

• Establish communications and maintain liaison with the

TALCE and deploying unit.

• Call aircraft loads forward to the alert holding area in accordance with the air movement flow table.

• Receive, inspect, and control aircraft loads as they arrive at the alert holding area.

• Ensure that the required shoring and 463L dunnage is

Provided by the unit.

• Provide logistical support, maintenance, POL, and related services, as needed, to accomplish the out loading mission.

• Direct or guide the aircraft loads to the call forward area for joint inspection (JI) between DACG and TALCE.

• Maintain statistical data to account for the current status of all unit personnel and equipment scheduled for air movement.

• Retain a final corrected copy of each passenger/cargo manifest and inspection record.

• Escort aircraft loads to the ready line and ensuring that all personnel are briefed on flight line safety.

• Provide passenger holding area and life support.

• Transfer control of the aircraft load to the TALCE at the ready line/load ramp area.

• Provide load team personnel and support equipment as required (Safety equipment, MHE, pusher vehicles).

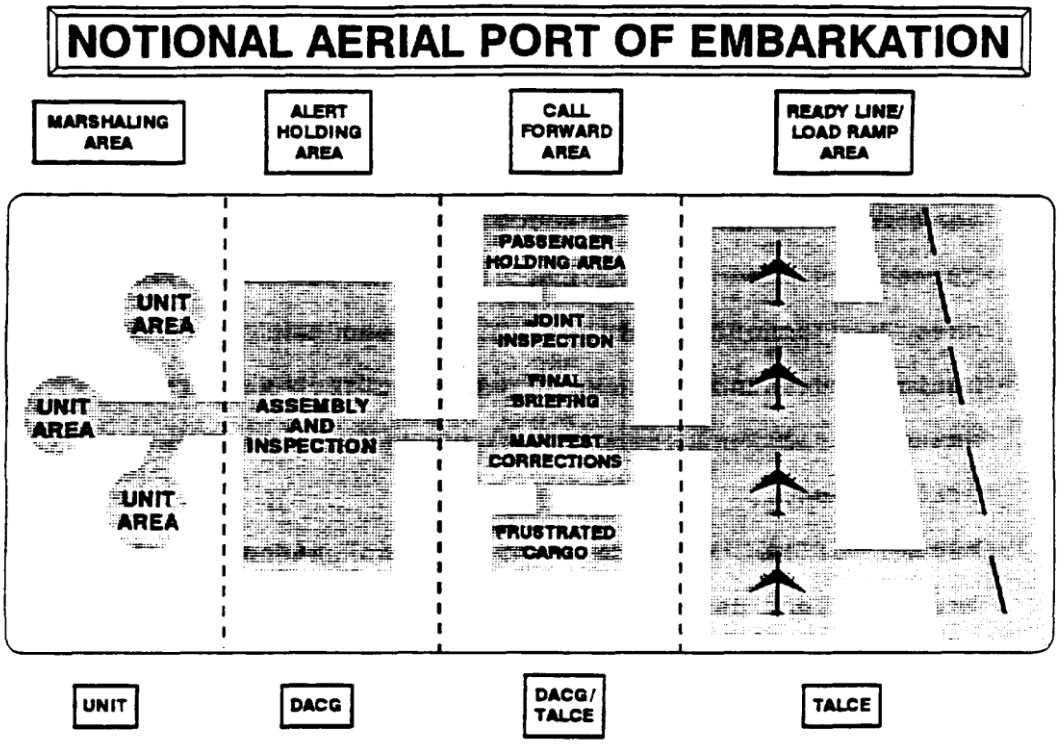


Figure VII-2. Notional APOE.

SECTION VIII. THEATER RECEPTION.

Theater based reception begins with the arrival of forces and their sustainment at the port of debarkation (POD). The primary challenge of this process is port clearance. Except during forced entry, port opening forces must precede the arrival of combat forces. Other CS and CSS forces may either precede or arrive concurrently with combat forces to conduct force reception and onward movement operations, establish theater distribution infrastructure, or security.

A. SEAPORT OF DEBARKATION.

When ships arrive at the SPOD, the port commander is responsible for discharging the unit equipment, staging the equipment, maintaining control, and releasing it to the unit. Units receive their equipment and move it to a marshaling area outside of the terminal. The length of time needed to discharge a ship depends on the type of ship and throughput capacity of the port, availability of berths, equipment, and stevedores.

As the vessel readies for off-loading, the port commander establishes a staging area for the transshipment and accounting of equipment. The port commander determines discharge priorities and assigns missions to terminal service units and the PSA who discharge vessels according to the port commander's priorities. Equipment is then staged based on theater onward movement requirements. As unit personnel arrive in the theater, they are transported to the SPOD to receive their equipment.

Equipment is then assembled and moved into the marshaling area. The marshaling area is an area where units reconfigure equipment and prepare for onward movement. It is located adjacent to the port. Prompt clearance of cargo from the terminal is essential to the efficiency and success of the total theater logistics system. It is also necessary to avoid serious congestion in the port staging area.

Since marshaling areas are not always available, units should be prepared to move directly into their area of operations from the port. When this is necessary, the marshaling area functions will have to be performed in the port staging area. This requires additional coordination with the port commander so that these activities do not interfere with discharge operations.

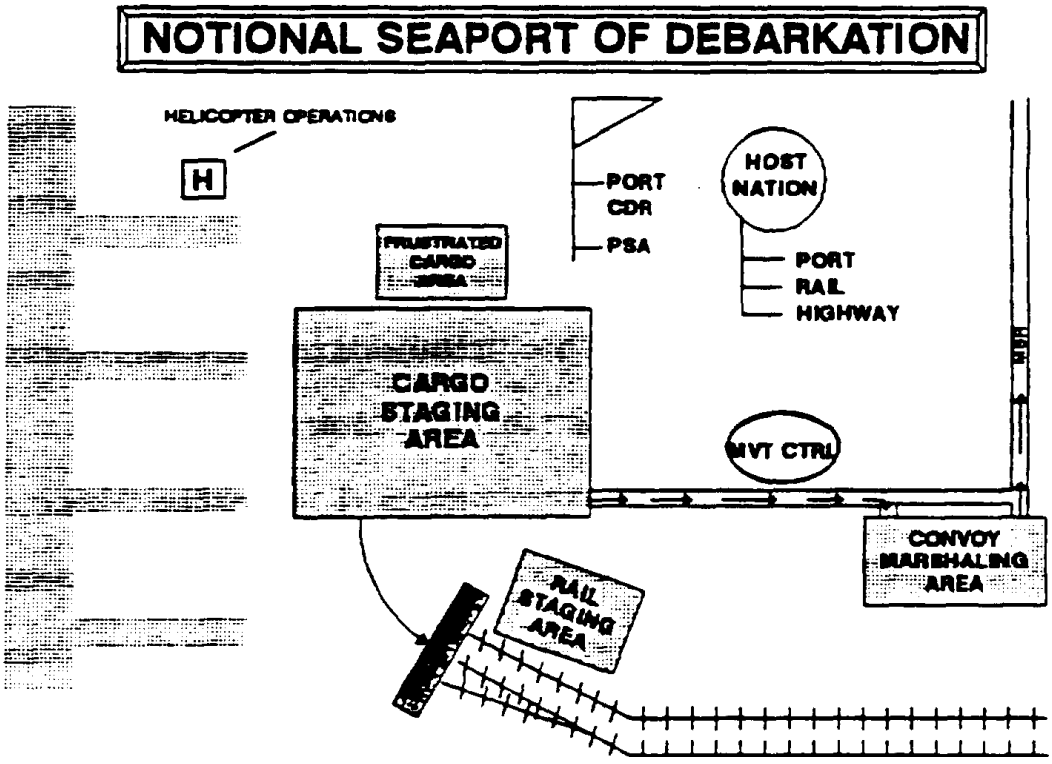


Figure VIII-1. Notional SPOD

B. AIRPORT OF DEBARKATION.

Reception at the APOD is coordinated by the senior logistics commander and executed by an arrival airfield control group (AACG). To do this the AACG must be in the lead elements of the transported force. The main areas of the arrival airfield are the off-load ramp, the holding area, and the unit marshaling area. The TALCE will supervise offloading of arriving aircraft. The AACG escorts loads to the holding area and assists the unit in moving to the marshaling area.

- The off-load ramp area is controlled by the TALCE.

Equipment and personnel are taken of f the aircraft and Tiedown devices are returned to the load master or TALCE. Equipment and personnel are then released to the AACG for movement to the holding area.

- The holding area is controlled by the AACG. Each aircraft load is received and processed for release to the deploying unit or placed into an in transit holding area. Minor services are performed on unit equipment such as refueling and maintenance. Personnel and equipment are accounted for and released to the unit for movement into the marshaling area.

- The marshaling area is the unit's responsibility. The deploying unit terminates air movement at the marshaling area and reconfigures equipment for onward movement.

The chalk leader or troop commander responsibilities include:

- Provide liaison and assistance to the TALCE/AACG.

- Comply with instructions from the off-load team chief when unlashing and off-loading from the aircraft.

- Retain all shoring and dunnage for redeployment.

- Provide passenger and cargo manifests to the AACG.

- Ensure that all aircraft Tiedown, pallet and nets are returned to the TALCE/AACG.

- Perform required maintenance checks (including refueling).

• Reconfigure, prepare, and organize equipment for onward movement.

AACG responsibilities include:

• Maintain coordination with the deploying unit and TALCE representative.

• Provide off-load teams and support equipment as required.

• Accept each planeload from the TALCE at the established release point.

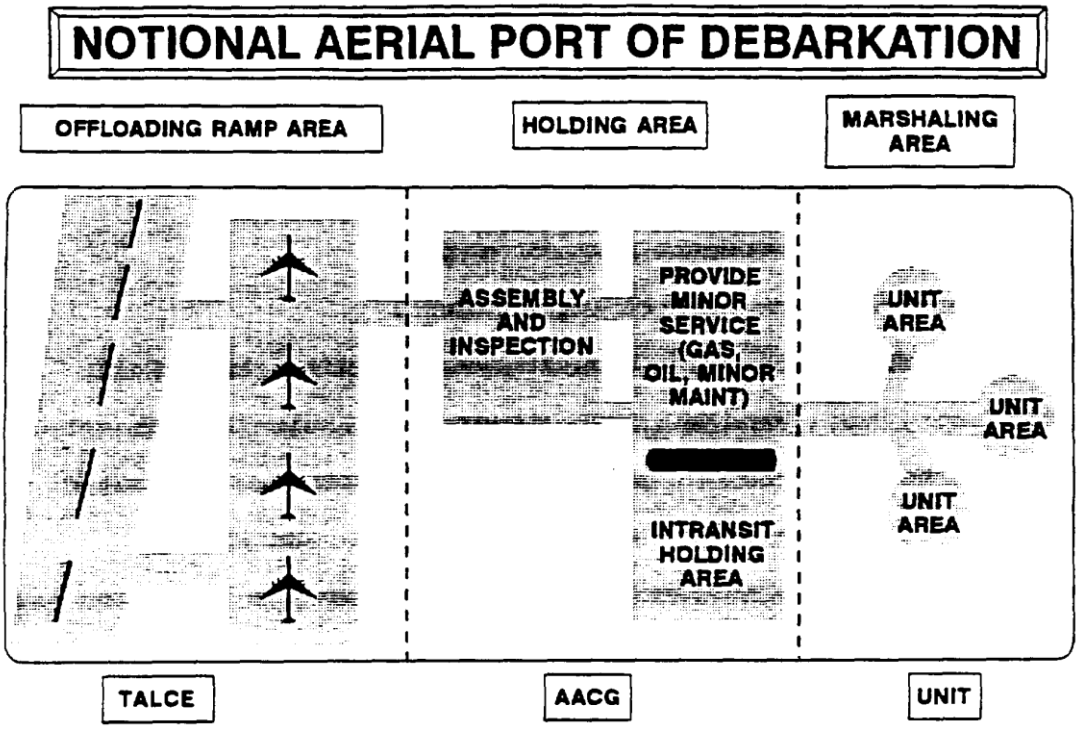
• Remove shoring and dunnage from the aircraft and transfer it to the unit.

• Maintain in transit visibility of arriving loads.

• Coordinate movement of aircraft pallets to the unit marshaling area for pallet breakdown.

• Provide fuel, oil, and minor maintenance for equipment.

• Release aircraft load to the deploying unit commander or his representative at a predesignated location.



C. ONWARD MOVEMENT.

Transportation request procedures are required for the orderly and expeditious movement of supplies throughout the system. Movement calculations can be made in advance for each type of unit. The unit must obtain the following information early in the planning process:

- The priorities for movement as established by the J3/G3 and the required arrival times.
- The current location of the moving forces.
- The assembly and marshaling area locations.
- The order of march by type and density of the force.
- The military load classification of each route.
- The time of movement (day or night).
- Transportation support requirements.

Upon notification of a planned move, examine the origin, destination, time, and the road network available for the move. Determine how many routes are available, routes are allocated according to the equipment moved, priorities, and time requirements. Then movement schedules are prepared by units and submitted to the movement control team (MCT).

Requests for additional transportation (trucks, air, rail, and inland water) support are submitted through supporting MCTs. The MCT then tasks transportation units to provide the necessary support. The units tasked to provide the support will coordinate directly with the moving units.

SECTION IX. REDEPLOYMENT

Redeployment is the preparation for and movement of forces (units), and materiel from one area of operation to another. The objective of redeployment is to maintain unit readiness and move equipment, supplies, and personnel efficiently.

The procedure begins after reconstitution, when the force closes on the tactical assembly area (TAA) to begin the redeployment process. While in the TILA the unit will consolidate equipment for cross-leveling and movement, identify excess stocks for turn-in, conduct load planning, coordinate for customs and agriculture inspections, initiate personnel actions, and validate UMD into an AUEL. Major tasks in the TAA include:

- Establish the safety climate for redeployment.
- Reconstitute and cross level equipment.
- Update the AUEL.
- Remove, inventory, and package hazardous material.
- Begin equipment preparations (repair, cleaning, and marking).
- Coordinate for customs and agriculture inspections.
- Identify and request 463L pallets and commercial containers as needed.
- secure internal vehicle loads for movement.
- Prepare and submit required theater movement requests for convoy, rail, air, or inland water.

Upon receipt of movement instructions, forces, individuals,

and material are moved to a redeployment assembly area (RAA. At the RAA units complete activities that were not accomplished at the TAA. The unit will conduct wash down procedures, pack and containerize equipment and supplies, perform customs and agricultural inspections, complete UMD on the DEL, and prepare movement documentation and affix military shipment labels.

Major tasks at the RAA include:

- Thoroughly clean all redeploying equipment and supplies.
- Conduct customs and agriculture inspections. Keep a copy of all customs clearance documents.
- Complete packing and containerization of all inspected equipment.
- Weigh, mark, and document all equipment on the DEL.
- Print military shipment labels based upon DEL information.
- Prepare and affix all required movement documents (DD 1387, DD 1253, DA 5748, placards, and stencils).
- Complete turn-in of host nation and contracted items.
- Prepare air load plans for movement.
- Segregate and move equipment into sterile marshaling areas and await movement instructions to the POE.

Instructions are then provided to move forces to the POE for final processing for strategic movement. The port operator calls forward units according to the redeployment plan and moves them into the port staging area (Section VII POE Operations). If equipment arrives at the POE without customs documentation and appropriate seals, equipment will be classified as frustrated and held until unit representatives correct the deficiencies. When equipment and personnel are processed at the POE they are placed in sterile areas until loading.

Major tasks at the POEs include:

- Conduct joint inspection of equipment.
- Segregate processed personnel and equipment into sterile holding areas for loading.
- Perform customs inspection for baggage (air and sea).

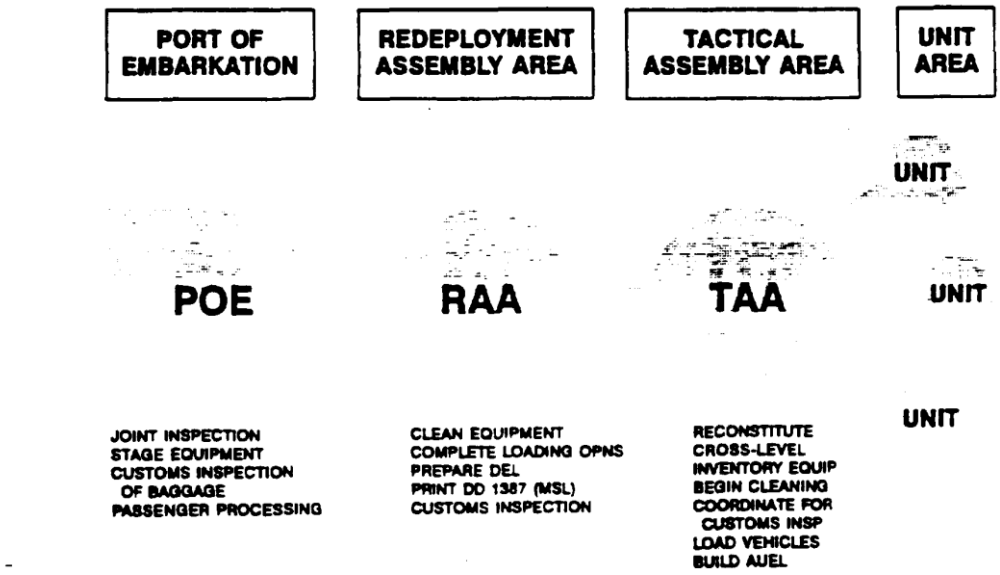


Figure X-1. Redeployment Process.

The POD is the initial CONUS off-load site. Personnel and equipment manifests are received, customs and US Department of Agriculture (USDA) inspectors check, approve, and issue customs and agriculture clearances, and port operators begin to process the inbound equipment and move it away from the POD. Equipment may be held at the staging area depending upon availability of transportation asset for onward movement.

From the staging area, personnel and equipment may be moved to a marshaling area for reconfiguration and continued movement to the home station. UMO's are responsible for coordinating the return of all personnel and equipment with the supporting TO for movement back to home stations. This includes preparing necessary convoy clearances and obtaining approval for movement to home station.

Establishing and enforcing safety standards is paramount. Redeployment is not a time for low vigilance levels. Do not allow complacency. Customs and USDA inspection regulations are more stringent and may drive the major effort for redeployment processing. Early compliance will result in a smooth flow.

In addition to the normal movement tasks, UMO responsibilities during redeployment include:

- Prepare and submit redeployment DEL.

• Schedule customs and agriculture inspectors to examine unit equipment.

• thoroughly clean all equipment. Remove all loose ammunition and hazardous materials.

• Provide customs personnel access to all equipment requiring clearance. The unit will move equipment and open all containers as required by customs inspectors.

• Provide any information needed to clear equipment during the customs inspection.

• Prepare required customs documents.

- Military Customs Label/Tag (DD Form 1253/1253-1).

- Decontamination Tag (DD Form 2271).

- Registration of War Trophy (DD Form 603).

- Certificate of Registration for Personally Owned Weapons (CF Form 4455/4457).

- Commander's Certificate for no ammunition or body parts.

• Keep a record of customs clearance receipts.

• Coordinate receipt and processing of redeploying equipment at home station.

APPENDIX A. TIEDOWN AND TENSIONING DEVICES.

ITEM STRENGTH NSN

CHAIN (COMMON)

3/8 inch 6,600 lbs 4010-00-443-4845

3/8 8,250 4010-00-803-8858

7/16 10,350 4010-00-047-3902

1/2 11,250 4010-00-149-5584

3/4 25,200 4010-00-449-6573

WIRE ROPE

1/4 inch 3,315 lbs 4010-00-269-9324 3/8 6,560 4010-00-272-8849

1/2 11,500 4010-00-763-8848

ROPE, MANILA (MIL-R-17343)

1/2 inch 2,900 lbs 4020-00-968-1357

5/8 4,900 4020-00-968-1358

3/4 6,600 4020-00-141-7152

1 11,600 4020-00-919-3443

STEEL STRAPPING

1/2 inch 1,170 lbs 3540-00-234-6241

5/8 1,460 3540-00-565-6242 3/4 1,760 3540-00-565-6243 11/4 (HIGH TENSILE) 3,390 3540-00-565-6244

∗ NOTE: Breaking strength for steel strapping requires at least two pairs of crimps in each seal, or two seals when overlapped.

ITEM STRENGTH NSN

TENSIONING DEVICES

Aircraft Tiedown

MB-1 Device 10,000 lbs 1670-00-212-1149

MB-1 Chain 10,000 4010-00-516-8405

MB-2 Device 25,000 1670-00-545-9063

CGU-1/B Nylon Cargo Strap 5,000 1670-00-725-1437

Load binders

3/9-1/2 inch Type IV 9,200 lbs 3990-01-213-1746 1/4-3/6 Type II 12,000 3990-00-171-9744

3/8-1/2 Type II 15,000 3990-00-171-9755

3/4 24,000 3990-00-401-1503

SHACKLES

1 3/8 inch, Bolt Pin Type 21 Ton 4030-01-187-0964

1 1/2 24 4030-00-169-9297

 NOTE: l 3/8 inch, Bolt Pin Type Shackle is suitable for use on most tracked vehicles. M1 series main battle tank requires six 24 ton shackles and an "O-Ring" for the pintle.

A. GENERAL

1. The TCN is a 17-character data element assigned to control and manage every shipment unit throughout the transportation pipeline. The TCN for each shipment is unique and not duplicated. Except for a misdirected shipment, a retrograde shipment will not be re-shipped using the original TCN. A new TCN will be created each time a shipment enters the transportation pipeline. In many shipments, TCNs begin with a Department of Defense Activity Address Code (DODAAC). The 17character TCN is essentially a four-part number composed of a DODAAC, Julian date, serial number, and suffix. The first three parts of the TCN for Military Standard Requisition and Issue Procedures (MILSTRIP) shipments are normally the requisition number, found on such documents as the DD Form 1348-1A, Issue Release/Receipt Document, (See Figure 202-7), DD Form 1149 Requisition and Invoice/Shipping Document, (Figure 203-1), or a contract. For most other shipments, the TCN is constructed in the same standard four-part format. The SEAVAN TCN (assigned by the Water Clearance Authority (WCA)/Ocean Cargo Clearance Authority (OCCA)) differs from the standard by inclusion of a voyage number instead of a Julian date and by using the suffix to identify container service payment responsibility and the container type. The personal property TCN has a totally unique construction derived from the sponsoring member’s/employee’s Service, social security number, shipment pickup/turn-in date, and the type of personal property being shipped.

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APPENDIX B: TRANSPORTATION CONTROL NUMBER (TCN)

Table O-1. TCN Construction

TCN Position	TCMD Record Position (rp)	Explanation
1	30	Service code (A-Army, F-Air Force, M-Marine Corps, N-Navy, and Z-Coast Guard).
2-8	31-37	Army activities will enter a Unit Identification Code beginning with TCN position 2 and putting a $ (dollar) special character in position 8. All other Services will enter a ULN beginning with TCN position 2 and filling any unused positions with a $ (dollar) special character. Army activities will generate a T_9 record containing ULN information. (See Appendix M, Table M-13).
9-10	38-39	Service use, except for code "CH" which is reserved to identify small units (10 tons of equipment or less) moving by air. Requires data entry, do not leave blank. Use zeros if no data available.
11-14	40-43	Shipment number, increment number, or serial number.
15	44	Unit cargo TCN indicator. (Enter a zero here).
16-17	45-46	Split/partial shipment or complete shipment unit indicator.

Reference: DTR 4500.9-R-Part II Cargo Movement, Nov 2004, Appendix L and O.

APPENDIX C. DA FORM 5748R, SHIPMENT UNIT PACKING LIST.

All vehicles, containers, warehouse pallets, 463L pallets, crates, and bundles must display a packing list showing the complete contents. Packing lists are not required for items that do not need identification, such as empty vehicles. However, these items must be listed on the packing list if they are loaded in a truck or container. A packing list is not always required for a container if it already has a listing of its complete contents on it. An example is an inventory of tools or a parts list such as those found in supply bulletins. Do not list classified materiel on packing lists. Prepare five copies of the packing list for distribution.

- One copy is filed in the movement plan.

- One copy is put on the outside of the shipment unit where it is easily visible or accessible. (inside a weatherproof shipping envelope, NSN 8105-00-857-2247)

- One copy is put inside the shipment unit.

- One copy is prepared for the unit's representative (liaison team or supercargo).

- One copy is retained by the hand receipt holder.

SHIPMENT UNIT PACKING LIST AND LOAD DIAGRAM

For use of this form, see FM 55-65; the proponent agency is TRADOC

PAGE 1 OF 2

1 DEPLOYING UNIT: A Co 2-15 IN WABCAB	2 UIC OR BUMPER NO: A-44	3 TCN OR SEAL NUMBER: AWABCAB$0D12340XX	
4 SHIPMENT UNIT DESCRIPTION: M923, TRK, CGO, 5TON X40794 D1234		5 DATE PACKED: DD MMM YY	
6 LENGTH: 311	7 WIDTH: 98	8 HEIGHT: 146	12. LOCATION OF CG: (AIR MOVE ONLY)
9 CUBE: 2575	10 EMPTY WEIGHT: 20,930	11 LOADED WEIGHT: 26,346	

13. PACKING LIST

CARGO LOC NO a	CONTENTS (Description and Numbers/Status) b	TYPE PKG c	PKG QTY d	PKG WEIGHT e	TOTAL PKG WEIGHT
1	ISU-90, PLL BASIC LOAD (see attached packing list)	PT	1	5100	5100
2	Camouflage Screens and Support System.	PT	4	50	200
BBM	3/4 inch plywood	PC	2	25	50
	wooden wharehouse pallet	PT	1	50	50
	2 x 4 x8	PC	4	2	8
	8 penny nails	lb	2	1	2
	CGU-1 Cargo Strap	PC	6	1	6
					5416

14. CERTIFICATION. This certifies that items listed hereon are contained within the specified packages.

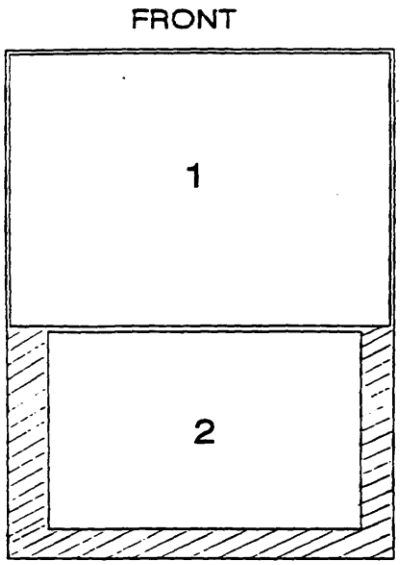
f TYPED NAME	GRADE	TITLE
SMITH, JOHN A	SGT	SECTION LEADER

g SIGNATURE | DATE: DD MMM YY

DA FORM 5748-R, MAR 89

Figure C-1. Shipment Unit Packing list (Front)

15 LOAD DIAGRAM (Sketch cargo storage in space below)



16 REMARKS

- Camouflage screens and support systems are banded to a warehouse pallet.
- 3/4 inch plywood is between the ISU-90 and the bed of the vehicle to prevent metal-to-metal contact.
- Use four CGU-1 cargo straps to secure the ISU-90.
- Use two CGU-1 cargo straps to secure the camouflage screens and support systems.

REVERSE OF DA FORM 5748-R, MAR 80

Figure C-2. Shipment Unit Packing List Back).

Instructions for the DA Form 5748-R, Shipment Unit Packing List:

Block 1. Enter the name of deploying unit and UIC.

Block 2. Enter the UIC or vehicle bumper number.

Block 3. Enter the TCN or container meal number.

Block 4. Enter description of shipment unit, line number from property book, index number, and SUN.

Block 5. Enter the date form is compiled/date packed.

Block 6. Enter length.

Block 7. Enter width.

Block 8. Enter height.

Block 9. Enter cubic feet. (length X width X height / 1728)

Block 10. Enter empty weight.

Block 11. Enter loaded weight.

Block 12. Enter location of center of balance (CB).

Column 13a. Enter cargo location number (See note at block 15.)

Number contents in sequence. Use this same number

to identify the cargo on the load diagram.

Column 13b. Enter a general shipment unit description and use

phrases such as "NBC defense equipment," and

"office supplies" (do not use terms such as

"miscellaneous"). Highlight all hazardous

materials.

Column 13c. Enter the type of package.

Column 13d. Enter unit of issue such as "1 ea."

Column 13e. Enter the appropriate measurement (weight, volume).

NOTE: The bottom of the first page must contain the following:

- BBPCT information; for example, special crating and/or internal packing materials (be specific).

- Total weight in pounds.

- Statement: "This is to certify the above named materials are properly classified, described, packaged, marked, and labeled and are in the proper condition for transportation according to the applicable regulations of the Department of Transportation. "

Block 14a-e. Enter the name, grade, title, signature of person preparing the form and date. If the contents include

hazardous cargo, then the unit's hazardous cargo certifying official will sign under the hazardous cargo statement.

Block 15. A load diagram is shown for all loaded items. The load diagram must show:

- A diagram of the location of each item loaded.

- A brief description of the load, including potential loading problem and instructions.

- The type of container or vehicle.

- All blocking, bracing, and packing materials needed to secure the cargo.

Block 16. Include any additional instructions for load preparation.

APPENDIX D. SUPERCARGO CHECK LIST.

GENERAL: Supercargoes are teams of soldiers who accompany, supervise, guard, and maintain unit equipment aboard a ship. An essential part of their job is to monitor and correct equipment lashings and tie-downs during movement. They also provide key control, note items that cannot be repaired en route, and brief the port commander at the SPOD on vehicle conditions and any peculiar aspects of the cargo. Supercargoes are the deploying unit commander's on-board representatives during the movement of unit equipment on a ship.

PERSONNEL: While the exact composition of the supercargo team depend; on several factors, it generally consists of an OIC/NCOIC, classified/sensitive cargo escorts, and selected maintenance personnel based on the type and quantity of equipment being shipped. The size of the supercargo team depends on the number of passenger berths available, the amount and mix of vehicles and equipment deployed, the length of voyage, and the number of units deploying equipment on a ship.

Mechanics are required for wheeled and tracked vehicles, aircraft, and communications equipment. Supercargo personnel must be experienced and licensed on all types of vehicles being shipped. Though it may not be practical for each supercargo to be licensed on each vehicle deployed, the team must consist of qualified drivers for each vehicle on the ship.

RESPONSIBILITIES: Supercargoes are critical to shipping and maintaining the operational readiness of equipment to enhance the unit's effectiveness on arrival in the overseas theater. The supercargo OIC/NCOIC will:

- Report to the port commander immediately upon arrival at the SPOE and presents copies of orders (DD Form 1610).

- Finalize berthing, messing, and soldier support arrangements for the supercargoes on the vessel.

- Provide the first mate a manifest of the supercargoes (full names, ranks, SSNs, units, place of birth, and citizenship) and leaves a copy with the port commander.

- Instruct supercargoes on their responsibility to comply with the vessel regulations and safety procedures. Ensure members understand the ship's layout, restricted areas, lifeboat stations, and actions in an emergency.

- Coordinate supercargo routine and emergency duty stations with the vessel captain or first mate.

- Establish a duty roster for supercargoes for continued coverage of the cargo operation and full responsiveness to the MTMC port commander or vessel first mate.

- Provide key control of vehicles and help port operations personnel maintain keys.

- Coordinate reporting procedures with the vessel master or first mate, to include whistle signals and their meanings, radio call signs for ship's crew and supercargo.

- Prior to vessel departure check all the holds for running vehicles, and damaged equipment.

- Get permission to send personnel into the cargo areas from the vessel captain or first mate.

- Use DA Form 1594 (Daily Staff Journal or Duty Officer Log) to record or log daily supercargo activities.

- Identify any special load/discharge requirements and specifies vehicles with problems.

- Provide status reports to the vessel's first mate on vehicle and equipment checks .

- Attend port operations meetings at the SPOB and SPOD to be familiar with operations and vehicle status.

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

- Establish a buddy system to check holds and make sure each team entering a hold has a radio and checks into and out of the hold on the supercargo radio net.

- Check the aircraft and vehicle lashings to make sure they are properly tightened, 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 or damage other equipment.

- Periodically start vehicles near loading/discharging ramps to prevent hindering vessel discharge.

DOCUMENTATION: Supercargo orders are completed on DD Form 1610 (Request for Authority for TDY) for each member of the supercargo team. Additionally, supercargoes need copies of immunization records, and proof of citizenship. Classified equipment escorts must have their authorized security classification listed on their orders.

Maintain a duty log using DA Form 1594 to record daily activities. Mandatory entries include checks of equipment, key control actions, and damage reports. If the situation is severe, request the information be transmitted to the SPOD from the ship while en route.

Use DA Form 2404 to note deficiencies and any corrective actions on vehicles and equipment. Complete the form with three copies. Attach one copy to the original DA Form 1594 and give it to the port commander. Attach another copy to the DA Form 1594 that is given to the unit commander of the supercargoes. One copy is attached to the piece of equipment.

EQUIPMENT: In addition to personal items required to support the supercargo, sufficient maintenance-related items must accompany the supercargo. This includes but is not limited to--

- Tool set, general mechanic's (one per mechanic).
- Slave (jumper) cable (one set per deck).
- Battery charger.
- Limited Class III and IX items required for minor repair en route, such as batteries, headlights, oil, and deicer.

APPENDIX E. PORT SUPPORT ACTIVITY.

The Port Support Activity (PSA) is a provisional organization provided by a supporting installation or area command to assist the port operator in receiving, processing, and clearing equipment at both SPOE and SPOD. The capabilities of the PSA are tailored based on the mission, available contract labor and host nation support (HNS), and military units performing port missions. Terminal operations success depends on a well-organized PSA to augment and supplement the port commander's SPOE/SPOD mission.

A general rule of thumb for determining the size of a PSA is a unit two echelons below a deploying force; for example, a company for a deploying brigade. This relates to size only, not organizational structure.

The PSA is under operational control of the TTBde/port commander. A memorandum of understanding (MOU) between the supporting command/installation and the port commander will identify the PSA support requirements. The port commander must request unexpected PSA support requirements not originally identified in the MOU.

Installation or area commanders should attempt to assign nondeploying units to the PSA. They should maintain the same core personnel for the duration of the command's deployment and augment as required. Otherwise, the supporting commander should first consider the type of unit and equipment being deployed.

Commanders should select units with the following qualification and skills:

- Personnel with appropriate equipment operator skills.
- Qualified personnel to handle classified/sensitive equipment and cargo.
- Maintenance personnel to correct deploying equipment deficiencies.

The PSA's day-to-day contact with the port commander is through port operations officer. The PSA duties include:

- Receive, inspect, and document deploying equipment.

- Correct equipment maintenance and shipping deficiencies that preclude sea movement.

- Operate unique equipment such as the M1 or atypical military vehicles.

- Provide backup organizational and limited DS maintenance for deploying units.

- Provide physical security guard force for staged military equipment.

- Provide blocking/bracing personnel and tools to secure secondary loads.

- Provide sufficient vehicles for their own mobility and mission support, including emergency vehicles.

- Provide personnel transport for transiting units and port operating personnel.

- Provide PSA personnel with safety equipment such as reflective vests, hard hats/helmets, flashlights, gloves, and goggles.

- Move deploying unit equipment according to the port traffic plan. In areas designated by the port commander, the PSA stages equipment according to the stow plan and call forward schedules for loading and unloading units.

- Stage vehicles by like type if a prestow plan is not available.

- Establish the necessary communications to ensure the proper flow of cargo.

- Provide daily operational reports of cargo received, maintenance performed, and operational problems to the port commander.

- Provide messing/billeting and medical support to transiting units.

APPENDIX F. CENTER OF BALANCE FOR AIR MOVEMENT.

The transported unit is responsible for weighing and marking the center of balance (CB) of cargo offered for air shipment. The cargo weight and CB must be determined to accurately compute the weight and balance of a loaded aircraft. Every item measuring 10 feet or longer or having a balance point other than the center must be marked with its CB. Prior to beginning the process ensure that scales used for weighing are calibrated.

Weigh and mark all vehicles (without driver) after secondary cargo has been loaded and secured. Prime movers and trailers should be weighed and marked as they will be loaded on the aircraft (connected or disconnected). The CB is not normally marked on pallets. Once the weight and CB are determined, nothing can be added or moved without reweighing and remarking. Use the following terms to calculate CB of a wheeled vehicle:

- RDL = Reference datum line. The point from which all measurements are taken. The Air Force uses the front bumper of the vehicle for the RDL.

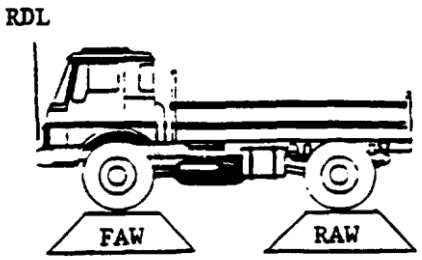
- GWT = Gross weight (pounds).

- FAW = Front axle weight (pounds).

- IAW = Intermediate axle weight (pounds).

- RAW = Rear axle weight (pounds).

- MOMENT = the number obtained by multiplying the weight by the distance (in inches) from the RDL.



To compute the CB location of a vehicle multiply the weight by the distance of each axle from the reference datum line, total all axle measurements together, then divide the total

by the gross weight. The result is the number of inches, computed to the nearest whole inch, to be measured back from the reference datum line to the center of balance of the vehicle.

CENTER OF BALANCE FORMULA

W1 = Front axle weight.

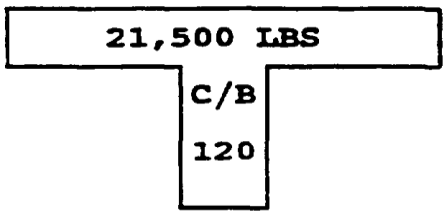
W2 = Rear axle weight.

D1 = Distance from RDL to front axle.

D2 = Distance from RDL to rear axle(s).

CB = $\frac{(W1 \times D1) + (W2 \times D2)...}{GWT}$.

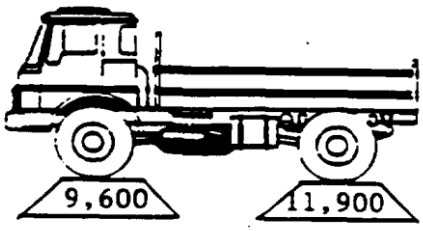
On tandem axles with less than a 48 inch separation, compute CE from RDL to tandem midpoint. When tandem axles exceed 48 inches, axle distance must be computed separately (W3/D3, etc).



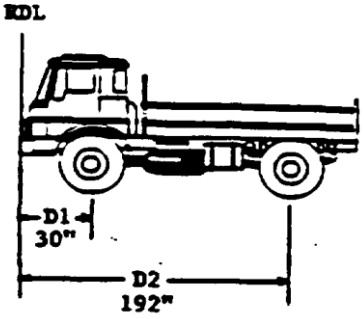
EXAMPLE

After computing the CB mark its location and gross weight on both sides of the vehicle with tape or chalk, forming the letter "T". Mark the gross weight on the horizontal portion, the vertical portion will contain the letters "CB" to indicate the exact position of the vehicle CB. Also indicate the number of inches from the RDL of the CB location. Axle weights will also be marked on both sides over each axle.

Step 1. Determine axle weights.



Step 2. Determine axle distances.



Step 3. Calculate center of balance.

CB= (W1X D1) + (W2X d2)

Gross Weight

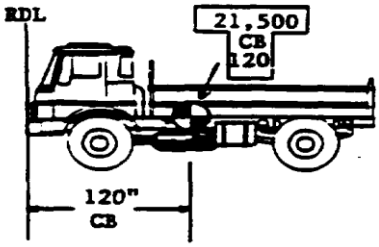
CB= (9.600X30) +(11,900X192) = 288,000+2,284,8000

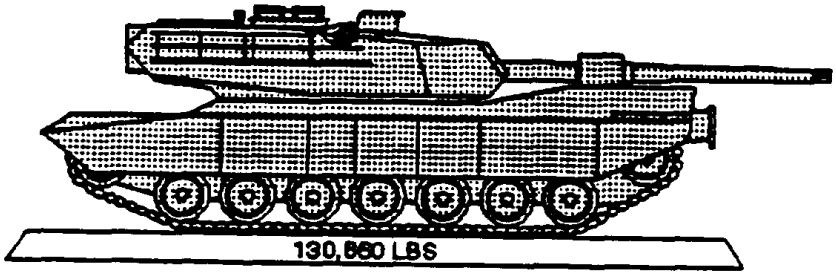
21,500

= 2,572,800= 119.67 OR 120 inches.

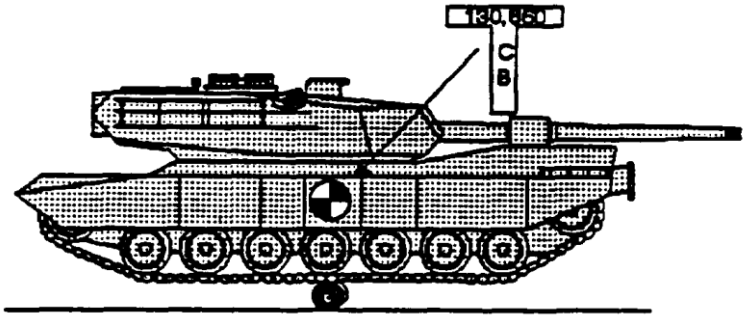
21,500

Step 4. Mark the CB 120 inches back from the RDL.





To determine weight for a tracked vehicle, drive the vehicle onto a scale large enough to accommodate the entire vehicle and record the weight.



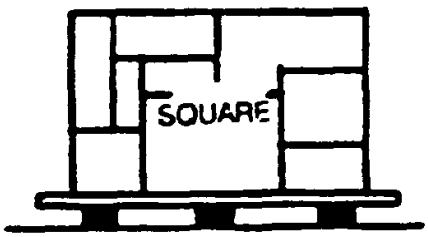
To determine the CB, drive the vehicle over a beam or pole until the vehicle tilts forward. Mark the side of the vehicle at the point where it tilts.

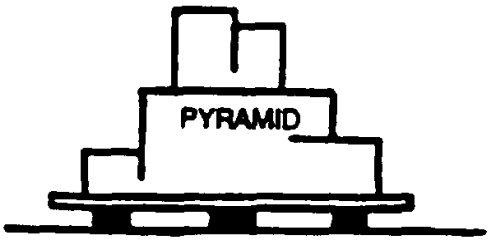
APPENDIX G. 463 L PALLETS.

The 463L cargo system includes the pallets, nets, MHE, and aircraft rail/roller systems. The pallet is made of aluminum skin with a wood or fiberglass core and is framed on all sides by aluminum rails. The rails have 22 tie-down rings attached with 6 rings on each long side and 5 ring on each short side. Each ring has a 7,500 pound capacity. The overall dimensions of the 463L pallet are 88 X 108 inches, with usable dimensions of 84 X 104 inches. This allows two inches around the load to attach straps, nets, or other restraint devices. An empty 463L pallet weighs 290 pounds and 355 pounds with nets.

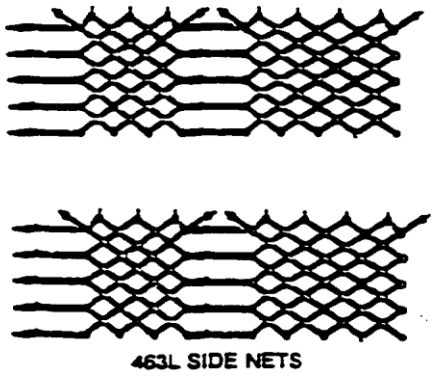
There are three nets to a set: one top net (yellow/tan) and two side nets (green/black). The side nets attach to the rings of the 463L pallet and the top net attaches by hooks to the rings on the side nets. Nets may be tightened using the adjustment points. The 463L pallet system and nets will restrain up to 10,000 pounds of general cargo 96 inches high.

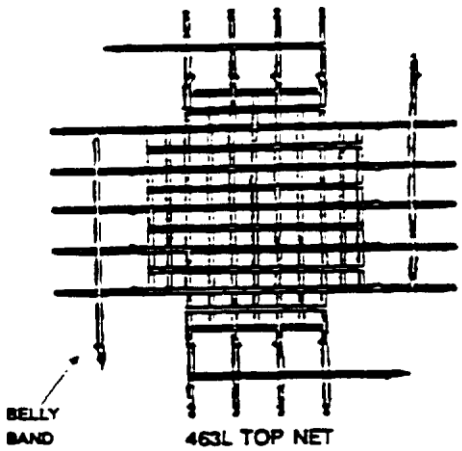
Begin building the pallet by placing three points of dunnage (4 X 4 X 88 inches) underneath the pallet. Start with the heaviest cargo, and distribute the weight out from the center. This will keep the pallet from becoming too heavy on one end and help maintain the pallet CE. Position cargo right side up with special handling labels facing out. Load in a square or pyramid shape whenever possible to make the load stable. Cover the pallet with a plastic 463L pallet cover, NSN 3990-00-930-1480.





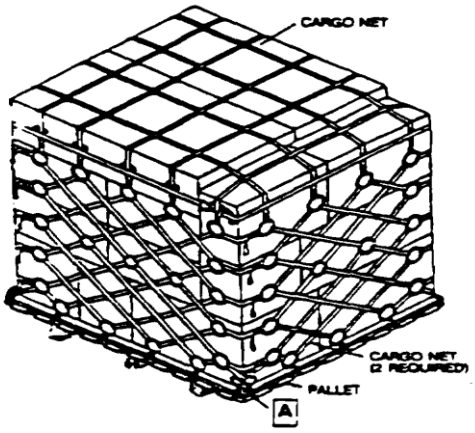
Before using the nets, lay them out and inspect for severability. Do not use nets that are torn, rotten, have loose stitching, or have bad or missing hooks. Only one bad strap or hook is enough to make the entire net unserviceable.

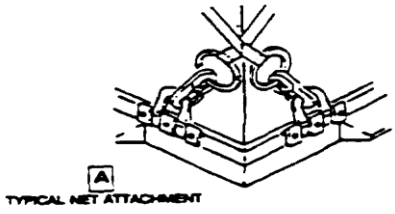


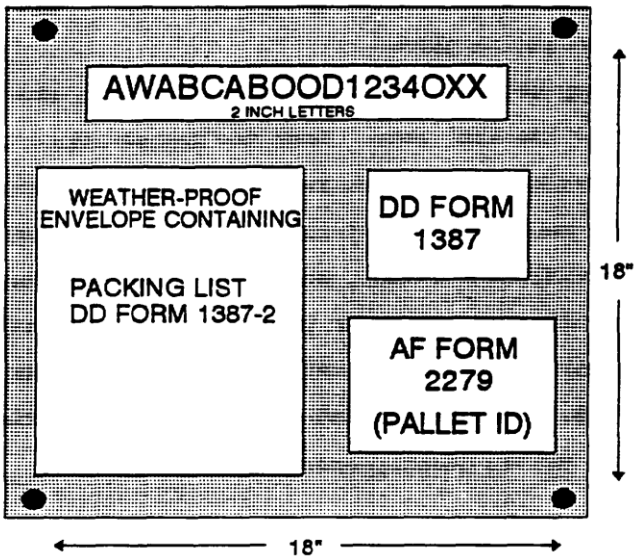


Identify the long side (6 hooks) and short side (5 hooks) of the net and position so the hooks point inward while attached to the pallet rings. Place the two side nets around the cargo and fasten the hooks to the rings on the pallet. Make sure the straps of the net cross at the corners. Pull the net as high over the cargo as possible, but do not tighten the straps until the top net is hooked in place.

Center the top net over the cargo, with the long and short sides lined up to the side nets. Hook the top net into the side nets using the O-rings located at the top and middle portion of the nets. Never use the bottom O-rings to secure the top net. Top net hooks should face inward, unless cargo can be damaged by the hooks. When the top net is in place, two people should pull evenly on all the straps opposite of each other to tighten the top net. Tuck the loose ends of the straps into the netting to prevent snagging during loading operations.







Mark pallets on adjacent sides with a military shipment label (DD Form 1387), and any required documents such as hazardous cargo declaration, or other identification markings. Ensure items are placed in a weather-proof shipping envelope or on a pallet identification board.

Pallets are available to units planning or executing an air movement through their TO from AMC. The user is responsible for building 463L pallets and may be responsible for loading them onto aircraft. FM 55-9 provides detailed guidance on pallet building and documentation.

APPENDIX H. AIRLOAD PLANNING.

Air load planning is a critical skill that requires training and certification. Units that plan to deploy by air must have certified air load planners to develop viable air load plans.

Primarily the load planner must ensure the safe and efficient use of the aircraft. He must comply with aircraft safety, weight and balance, and floor load restrictions. He must ensure that the load is within an acceptable center of balance (CB) condition for takeoff, flight, and landing. The load planner must keep other factors in mind such as ease of on load and off-load. Improper planning can result in excessive loading or off-loading time or structural failure in flight or on landing. A load properly planned and coordinated will go on the aircraft quickly, safely, and with minimum difficulty.

Load planners must know the allowable cabin load (ACL} for a particular aircraft. ACL is the weight of cargo and personnel that an aircraft can carry and is provided by Air Force personnel for each operation. The following ACL's are based on maximum payloads and are for general planning purposes only:

	2,000 miles	3,000 miles
C-130E/H	25,000 pounds	17,400 pounds
C-141B	50,000 pounds	46,000 pounds
KC-10	118,000 pounds	80,000 pounds
C-17	138,000 pounds	94,000 pounds
C-5	149,000 pounds	138,200 pounds

The following general rules of loading apply to all aircraft:

- Plan to move general bulk cargo (such as boxes or crates) on the back of cargo-carrying trucks or trailers.

- When loading cargo in the beds of trucks or in trailers, do not exceed the rated capacity of the vehicle.

- When loading 463L pallets, use forklifts rated at a

lifting capacity equal to or greater than the pallet weight. Normally, 10K forklifts are used.

- Identify in advance any additional required loading aids to ensure availability at the equipment load time.

Examples are shoring, aircraft winch, and MHE. (Aircraft ground time is minimized when the unit is prepared to load.)

• Use shoring to prevent damage to the aircraft floor or airfield pavement.

• Do not deflate vehicle tires to achieve vehicle height clearance to fit within the aircraft loading envelope.

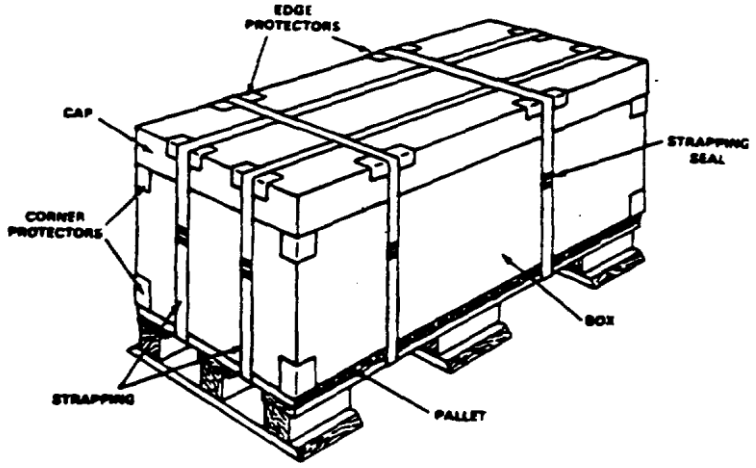
• Do not use the book weight of items for weight and balance purposes, use the actual scale weight.

• Do not exceed aircraft weight or floor limitations.

• Plan on a driver and assistant driver to accompany each vehicle.

• Keep the associated trailer connected to its prime mover for ease of off-load.

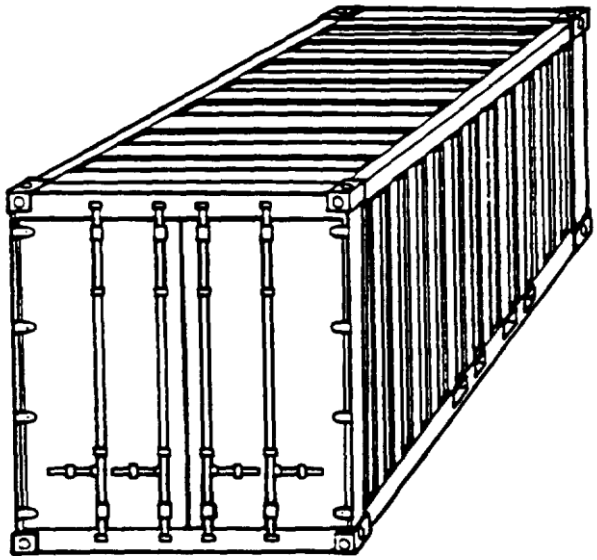
APPENDIX I. CONTAINERS.



1. CONEX INSERT

NSN 8115-00-753-4690 (45" X 32" X 28")

NSN 8115-00-753-4691 (58" X 33" X 27")



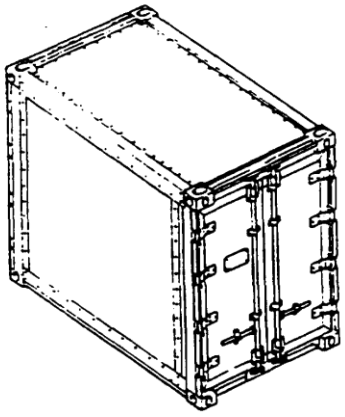
2. MILVAN

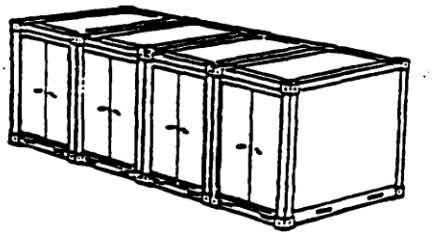
LENGTH 20' WIDTH 8’

HEIGHT 8' CAPACITY 41,300 LBS

3. EQUIPMENT DEPLOYMENT AND STORAGE SYSTEMS (EDSS)

a. Quadruple Container (QUADCON)

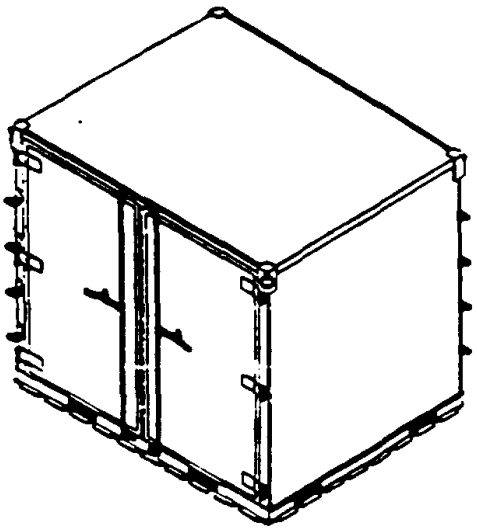




LENGTH 96" WIDTH 57.5"

HEIGHT 82" CAPACITY 8,000 LBS

b. Internal Airlift/Helicopter Slingable Container Unit (ISU)



LENGTH 88" WIDTH 108"

HEIGHT varies 60" to 90" CAPACITY 10,000 LBS

APPENDIX J. SOLDIER READINESS PROCESSING.

Units will maintain a roster of each member's name, telephone number, and address. The roster is organized so that the unit commander can contact one or more key members of the unit and can initiate a chain of notification. Using this roster, key members can tell who has been notified. Reporting procedures will be included in the unit SOP. A backup system must be established that includes strip maps and directions to the homes of key personnel.

After the unit commander assesses METT-T, he will brief key personnel, soldiers, and family members. Briefings are given within security limitations and according to AR 220-10. Briefings include, but are not limited to:

- The mission.
- Unit movement plans. The UMO will brief key personnel on deployment procedures and duties.
- Requirements for advance party, liaison personnel, movement teams, supercargo’s, and escorts.
- Guidance to recall personnel attached/detached, on leave, temporary duty, attending school, or nondeployable.
- Individual/unit equipment layout and inspection.
- Operations security (OPSEC} and subversion and espionage directed against the U.S. Army (SAEDA).
- Overseas orientation on culture, customs, history, political system, economy, and force protection.

The supporting installation or area command must establish

Soldier readiness processing (SRP) checks for deploying personnel in accordance with AR 600-8-101. Normally done in an assembly-line manner, checks include personnel records, finance, legal, medical, dental, and security. SRP checks include:

- ID card and tags (2)(medical warning tags if applicable}.
- Shot record PHS 731 and immunizations up to date.
- Glasses and mask inserts (2).

- DNA samples taken if required.
- Prescription renewal as required.
- Dental examination records and pantographic X-ray.
- Emergency data card (DD Form 93).
- Service members group life insurance (SGLI).
- Finance.

- Sure pay check to bank.
- Allotments.

- Disposition of privately owned vehicle (POV) location of POV, keys, power of attorney, insurance, and storage.
- Personal property storage with completed DD Form 1701, Inventory of Household Goods; DD Form 1797, Personal Property Counseling Check list; and DD Form 1299, Application for Shipment and Storage of Household Goods.
- Mail forwarding instructions DA Form 3955.
- Legal assistance to complete will and power of attorney.

Soldier training requirements.

- Army physical fitness test (APFT) within last 6 months.
- Code of conduct training within the last 12 months.
- A survival, escape, resistance, and evasion (SERE) training peculiar to deployment destination.
- Qualification of weapon use within the last 12 months.
- SAEDA training within the past 12 months.
- Driver’s training course for destination country.

Unit commanders must arrange the unit family members’

Briefing and ensure that unit personnel are given appointments with the family assistance officer. The family assistance officer is usually appointed from the staff of the command having control over the moving unit and will:

- Establish a chain of concern for family members to obtain support and information.

- Advise family members of their entitlements for travel and shipment or storage of household goods.

- Advise family members of the services available through the Red Cross, Army Emergency Relief, and Army Community Services.

http://www.transchool.eustis.army.mil/UMOD/Guide/intro.html