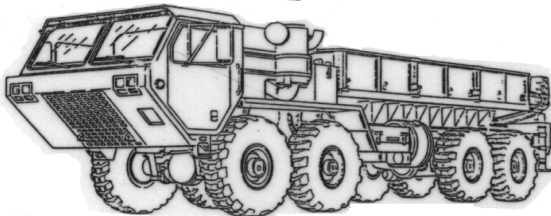
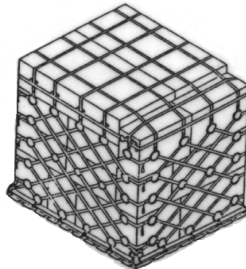
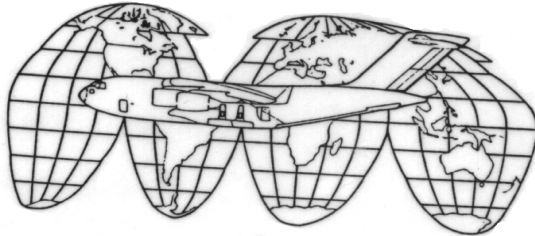


HEADQUARTERS, DEPARTMENT OF THE ARMY  
GRAPHIC TRAINING AID 55-07-003 FEBRUARY 1996  
(Supersedes GTA 55-7-2, June 1982)

## AIR DEPLOYMENT PLANNING GUIDE



This GTA is designed as a pocket reference for training and preparation of unit deployment by Air Force cargo aircraft. Safe training and execution is *force protection*. All personnel must emphasize safety and use the principles of risk management when making decisions.

DISTRIBUTION: Training Support Centers (TSC)

DISTRIBUTION RESTRICTION: None

# AIR DEPLOYMENT PLANNING GUIDE

GTA 55-07-003

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# DEPLOYING UNIT RESPONSIBILITY

1. Identify what troops and equipment will deploy and their priority for airlift.
2. Identify oversized equipment and that equipment requiring special loading procedures. Coordinate these requirements with your supporting Air Mobility Control Squadron (AMCS)
  - a. Vehicles scheduled for air transport on C-130 and C141-B which have an operation height over 102 inches must be reduced in height. Equipment permanently installed in a vehicle will be transported as a vehicle load regardless of height.
  - b. Determine what type of aircraft will support the mission and obtain their allowable cabin loads (ACL's).
3. Determine secondary loads for each vehicle and trailer, (as required).
  - a. Determine blocking, bracing, and packing requirements for secondary loads.
  - b. Equipment and cargo will be securely restrained.
  - c. Secure equipment and cargo with a minimum ½-inch thick hemp type rope laced laterally and longitudinally to the outside vehicle tie down points. Ensure the rope contacts the cargo, not just hold the side racks down.
4. Identify cargo to be palletized and determine the number of 463L pallets required.
5. Determine shoring requirements for vehicles. All shoring will be provided by the deploying unit.
6. Comply with hazardous materials regulations to airlift hazardous materials.
7. Conduct a final joint coordination meeting between the TALCE, D/AACG, and deploying unit.

# AIRCRAFT CHARACTERISTICS

AIRCRAFT	ALLOWABLE CABIN LOAD*	MAXIMUM TROOP SEATS OVER WATER	CARGO COMPARTMENT OVERALL DIMENSIONS		
			LENGTH	WIDTH	HEIGHT
C-130	25,000 lbs	74	624"	123"	108"
C-141B	46,000 lbs	153	1,251"	123"	109"
C-5A/B	130,000 lbs	73	1,733"	228"	162"
C-17	135,000 lbs	102	1,075"	216"	148"(1) 162"(2)
KC-10	80,000 lbs	69	1,508"	218"	108"

(\*) PEACE TIME/CONTINGENCY PLANNING FACTORS

(1) FWD/UNDER WING BOX

(2) AFT WING BOX

# STANDARD TROOP WEIGHTS

CATEGORY 1 - 210 lbs per troop. Includes LBE (load bearing equipment), weapon and helmet.

CATEGORY 2 - 300 lbs per troop. Includes Category 1, plus rucksack and organizational equipment.

CATEGORY 3 - 400 lbs per troop. Includes Category 1, 2, and duffel bag (100 lbs).

Troop planning weight for KC-10 is 180 lbs per troop. All troop baggage and hand carried equipment will be palletized.

# 463L CARGO SYSTEM

## PALLET DIMENSIONS:

WIDTH: 108 inches; LENGTH 88 inches, HEIGHT: 2 ¼ inches.

## USABLE DIMENSIONS:

WIDTH 104 inches; LENGTH: 84 inches

## WEIGHT OF PALLET

Empty .....	290 lbs
Weight of Nets (side and top) .....	65 lbs
Maximum Cargo Weight .....	10,000 lbs
Maximum Gross Weight .....	10,355 lbs

## NOMENCLATURE

## NSN

## SIZE

Pallet, cargo, Aircraft  
HCU-6E

1670-00-820-4896

88 x 108 x 2 ¼"

Net, Cargo, Tie-Down  
Pallet, Top, HCU 15-C

1670-00-969-4103

88 x 108

Net, Cargo, Tie-Down  
Pallet, Side, HCU-7/E

1670-00-996-2780

88 x 108

CGU-1/B, Nylon Strap  
5,000-lb Capacity

1670-00-725-1437

Cover, Plastic, Pallet  
463L, HCU-6/E

3990-00-930-1480

Large, 10 per roll

Scale, Load, Wheel  
Model PT 300-6-10

6670-01-377-2571

Pallet, Coupler (2" spacing)

1670-01-856-0875

C-17, C-130, C141B, and C-5A/B

Pallet, Coupler (1" spacing)

1670-01-302-3637

KC-10

# 463L PALLET DATA - CARGO AIRCRAFT

## C-130 PALLET DATA

- Maximum six 463L pallets
- Maximum height: 96 inches
- Gross weight: 10,355 lbs
- Gross weight position #5: 8,500 lbs
- Height restriction on ramp (#6): 76 inches
- Gross weight on ramp (#6): 4,664 lbs

## C-141B PALLET DATA

- Maximum 13 463L pallets
- Maximum height: 96 inches
- Gross weight: 10,355 lbs
- Height restriction position #1 and #13: 76 inches
- Gross weight on ramp (#13): 7,500 lbs

## C-5A/B PALLET DATA

- Maximum 36 463L pallets
- Maximum height: 96 inches
- Gross weight: 10,355 lbs
- Height restriction aft ramp (#35 and #36): 70 inches
- Gross weight on forward ramp (#1 and #2), aft ramp (#35 and #36): 7,500 lbs each pallet position

## C-17 PALLET DATA

- Maximum 11 center line or 18 double-row
- Maximum height: 96 inches
- Gross weight: 10,355 lbs
- Maximum weight on ramp: 40,000 lbs

## KC-10 PALLET DATA

- Maximum of either 16 or 22 pallets. See FM 55-9, Chapter 2, for specific pallet gross weights, heights and profiles.

**NOTE: REFER TO FM-55-9, UNIT AIR MOVEMENT PLANNING, FOR SPECIFIC GUIDANCE FOR VEHICULAR (ROLLING STOCK) EQUIPMENT, I.E., MAXIMUM WHEEL OR AXLE GROSS WEIGHT LIMITATIONS FOR EACH CARGO AIRCRAFT.**

# DETERMINE C/B OF VEHICLES

STEP 1. Weigh all axles individually.

STEP 2. Mark weight above each individual axle.

STEP 3. Establish the RDL (Reference Datum Line) at the forward edge of the vehicle.

STEP 4. Measure all distances from RDL to center of each individual axle.

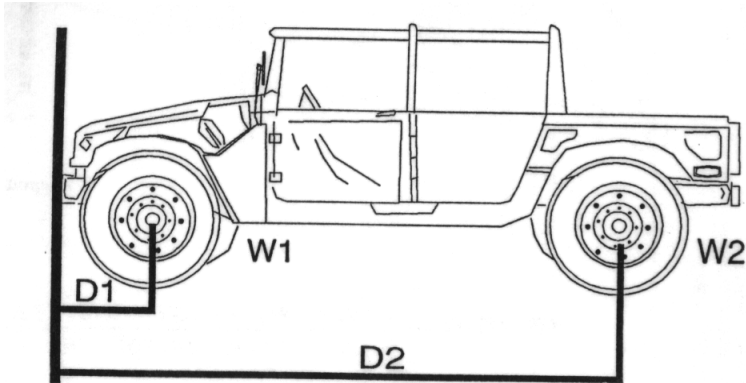
STEP 5. Distance multiplied by weight equals a moment.

Example of basic formula for determining the Center of Balance (C/B).

$$\frac{(D1 \times W1) + (D2 \times W2)}{\text{GROSS WEIGHT}} = \text{C/B from RDL}$$

\* NOTE: Gross weight is determined by adding all axle weights together.

Example number 1.



D1 from RDL (From Forward Edge) to center of front axle = 20"

W1 front axle weight = 2,870 lbs

D2 from RDL (From Forward Edge) to center of rear axle = 150"

W2 rear axle = 2,550 lbs

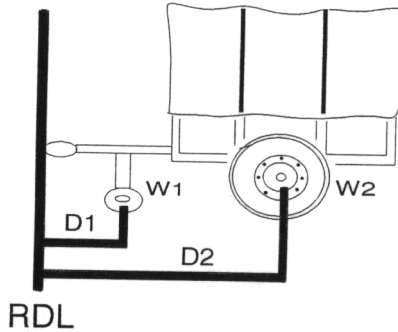
$$\begin{aligned} 20" \times 2,870 &= 57,400 \text{ moment} \\ \underline{150" \times 2,550} &= \underline{382,500 \text{ moment}} \\ &439,900 \text{ total moment} \end{aligned}$$

W1 2,870 lbs + W2 2,550 lbs = Gross Weight 5,420 lbs

439,900 total moment divided by 5,420 lbs gross weight = C/B 81" from RDL

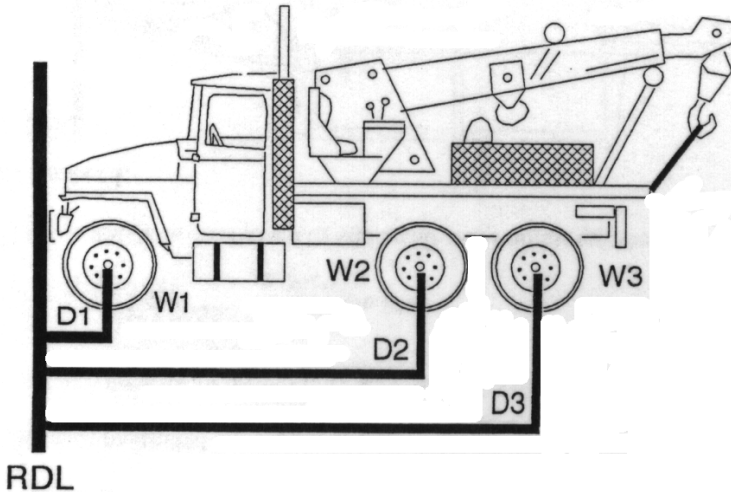
$$\frac{(D1 \ 20" \times W1 \ 2,870 \ \text{lbs}) + (D2 \ 150" \times W2 \ 2,550 \ \text{lbs})}{5,420 \ \text{lbs gwt}} = \text{C/B } 81" \ \text{from RDL}$$

Example number 2.



$(D1\ 15'' \times W1\ 250\ \text{lbs}) + (D2\ 102'' \times W2\ 2,250\ \text{lbs})$   
 $W1\ 250\ \text{lbs} + W2\ 2,250\ \text{lbs} = 2,500\ \text{lbs gross weight} = \text{C/B } 93'' \text{ from RDL}$

Example number 3.



$(D1\ 70'' \times W1\ 12,500) + (D2\ 222'' \times W2\ 12,900) + (D3\ 276'' \times W3\ 12,700)$   
 $W1\ 12,500\ \text{lbs} + W2\ 12,900\ \text{lbs} + W3\ 12,700\ \text{lbs} = 38,100\ \text{lbs gross weight} = \text{C/B } 190'' \text{ from RDL}$



# DEPARTURE AIRFIELD OPERATIONS

## MARSHALING AREA

Deploying unit area of responsibility. Unit prepares for air movement; assembles vehicles and equipment, supplies, and deploying troops into check (loads) and delivers to alert control of each check; directs to the DACG for air movement operation.

## ALERT HOLDING AREA

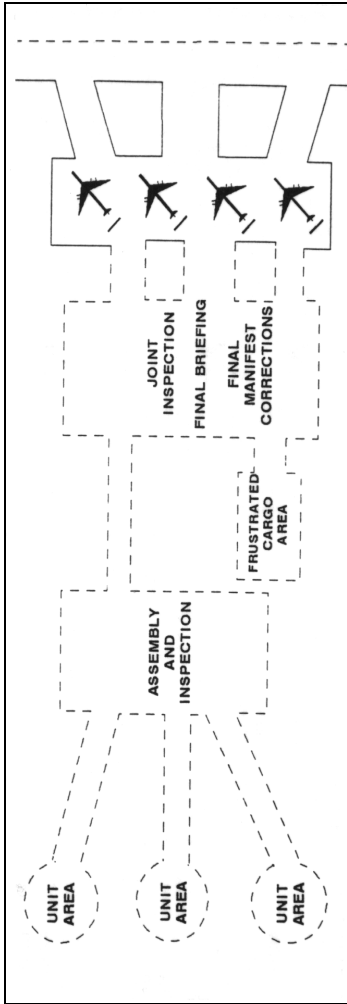
Departure Airfield Control Group (DACG) area of responsibility. The main function of the AHC is to coordinate the movement of aircraft and supplies from the alert holding area to the call forward area in an orderly fashion. The reception of aircraft loads and the performance of a pre-inspection are the major functions accomplished.

## CALL FORWARD AREA

Dual DACG and TALCE (mobility force) area of responsibility. Joint inspection operations are performed. The main function of this area is the major function of this area. Loads are moved from the call forward area and released to the TALCE at the ready line.

## READY LINE/LOADING RAMP AREA

TALCE (mobility force) are of responsibility. Personnel are responsible for operations from the DACG. Additional briefings/inspections, as required, are responsible for all air movement operations from loading to airtail.



### MAJOR FUNCTIONS:

- Prepares personnel and cargo manifests
- Conducts initial inspection of each check (load)
- Identify cargo custodian and troop commander.
- Release each check to the DACG at the Alert Holding Area.

### MAJOR FUNCTIONS:

- Accepts check from deploying unit.
- Conducts inspection (Pre-ll)
- Establish communications with deploying units functional areas, and TALCE.
- Coordinated logistical support.

### MAJOR FUNCTIONS:

- Conducts joint inspection.
- Documentation correction of discrepancies identified during the joint inspection.
- Compiles statistical data.

### MAJOR FUNCTIONS:

- Aircraft parking and servicing.
- Receives load at ready line.
- Cargo loading and lieldown.
- Personnel loading.

# ARRIVAL AIRFIELD OPERATIONS

## OFF-LOADING RAMP AREA

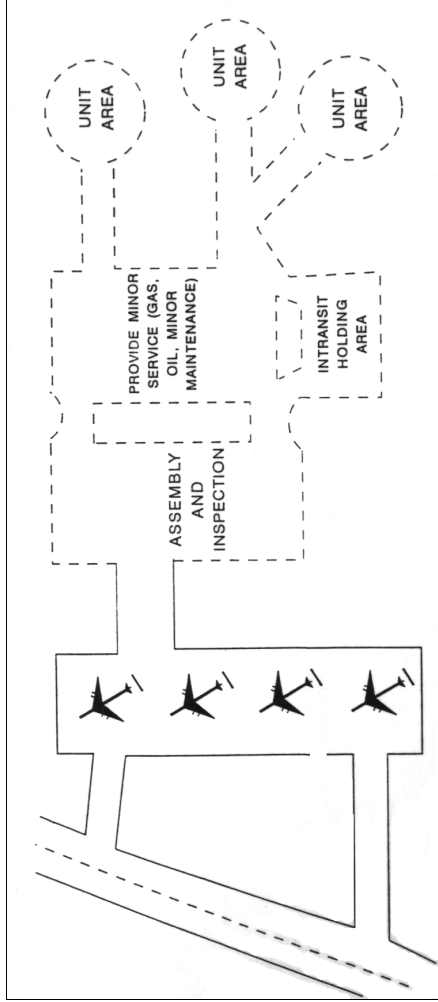
TALCE (mobility force) area of responsibility. Responsible for aircraft parking, supervision of off-loading operation, and releasing planelead to Arrival Airfield Control Group (AACG).

## HOLDING AREA

AACG area of responsibility. Receives and processes planeleads (chalks) for release to the deployed unit.

## UNIT AREA

Deployed unit's area of responsibility. Unit receives planeleads from the AACG which terminates the air movement.



### MAJOR FUNCTIONS:

- Performs base operations and other related functions.
- Maintains aircraft traffic logs and operational records.
- Accomplishes aircraft parking plan.
- Provides parking plan to AACG.
- Establishes communications with AACG.

### MAJOR FUNCTIONS:

- Assembles chalk and inspects for completeness.
- Provides minor services (gas, oil, maintenance).
- Records and forwards statistical data.
- Establishes communications to the unit area, functional areas, and TALCE.
- Coordinates clearance of cargo from holding area.

### MAJOR FUNCTION:

- Accepts aircraft loads

# TELEPHONE LISTING

## ACTIVE DUTY AIR FORCE UNITS

615 AIR MOBILITY CONTROL SQUADRON  
TRAVIS AFB, CALIFORNIA  
DSN 837-2405/3088

7 AIRLIFT CONTROL SQUADRON  
DYESS AFB, TEXAS  
DSN 461-4172/3230

621 AIR MOBILITY CONTROL SQUADRON  
MCGUIRE AFB, NEW JERSEY  
DSN 440-3144/3789

314 AIRLIFT CONTROL SQUADRON  
LITTLE ROCK AFB, ARKANSAS  
DSN 731-3267/3975

623 AIR MOBILITY SUPPORT SQUADRON  
RAMSTEIN AB, GERMANY  
DSN 480-8482

633 AIR MOBILITY SUPPORT SQUADRON  
KADENA AB, JAPAN  
DSN 634-2277/2593

## TANKER AIRLIFT CONTROL CENTER HQ AIR MOBILITY COMMAND SCOTT AFB, ILLINOIS

COMMAND AND CONTROL 1-800-851-7542  
AMERICA'S CELL DSN 576-1747  
EAST CELL DSN 576-1748  
WEST CELL DSN 576-1749

OPERATIONS AND TRANSPORTATION  
CIVIL RESERVE AIR FLEET DSN 576-6751

### CURRENT OPERATIONS

JOINT AIRBORNE/AIR TRANSPORTABILITY TRAINING BRANCH DSN 576-1792/5311  
OPERATIONS BRANCH DSN 576-1789/1504  
SPECIAL ASSIGNMENT AIRLIFT MISSION BRANCH DSN 576-1502/1790

## TRAINING INFORMATION

**AUTOMATED AIR LOAD PLANNING SYSTEM  
SUPPORT BRANCH (Air Load Module)  
FORT LEE, VIRGINIA  
DSN 539-0390/0383**

COMPUTER AIDED LOAD MANIFESTING  
(CALM) SYSTEM SUPPORT  
GUNTER AFB, ALABAMA  
DSN 596-5959

**JOINT STRATEGIC DEPLOYMENT TRAINING  
CENTER  
OPERATIONS BRANCH  
FORT EUSTIS, VIRGINIA  
DSN 927-2039/2120**

## NOTES