

Interim Brigade Combat Team Ammunition Logistics Integrated Concepts Team



Robert Colclough
Ammunition LAR – Ft Lewis



OSC - On the Line

As of 20 Jun 01

Report Documentation Page

Report Date 20JUN2001	Report Type N/A	Dates Covered (from... to) -
Title and Subtitle Interim Brigade Combat Team Ammunition Logistics Integrated Concepts Team	Contract Number	
	Grant Number	
	Program Element Number	
Author(s) Colclough, Robert	Project Number	
	Task Number	
	Work Unit Number	
Performing Organization Name(s) and Address(es) Ammunition LAR Ft Lewis	Performing Organization Report Number	
Sponsoring/Monitoring Agency Name(s) and Address(es) NDIA (National Defense Industrial Association 2111 Wilson Blvd., Ste. 400 Arlington, VA 22201-3061	Sponsor/Monitor's Acronym(s)	
	Sponsor/Monitor's Report Number(s)	
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes Proceedings from Armaments for the Army Transformation Conference, 18-20 June 2001 sponsored by NDIA		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 24		

IBCT Integrated Concept Team (ICT) for Ammo

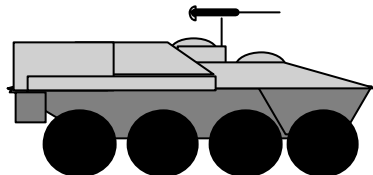
Purpose: To identify and address IBCT ammunition deployment and sustainment issues

– Chartered by DA DCSLOG

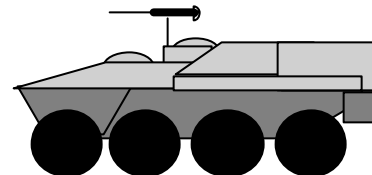
Chair: DA DCSLOG Munitions Div (LTC Sue Carlson)

Members:

**OSC & AMC
USADAC
CASCOM
TRADOC MSM
BCC**



**IBCT - 3rd Brigade (2ID)
I CORPS
FORSCOM
HQ AMC DCS-AMMO
TACOM-ARDEC**



IBCT Ammunition Support

*All must
fully
understand
and agree
to this
system!*

Many owners & stakeholders

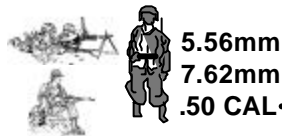
- CINC's - Warfighters and TRANSCOM
- AMC - OSC, FSC, TACOM-ARDEC, HQ DCS Ammo
- FORSCOM - I Corps, Ft. Lewis
- 3 ID/2 ID, then 1ID/25ID
- TRADOC - HQ, CBT Arms Schools, CASCOM, Ord & Trans, BCC
- MTMC
- USAF
- HQDA DCSOPS, DCSLOG

Potential Requirements and Issues

- Installation ASP improvements (Major \$) – Double doors in depots
- Purchase and position adequate 463L pallets (Dedicated)
- Purchase and position adequate Flatracks - CROPS (w/tiedowns) (Dedicated)
- Development of approved Bde ammo configured load package drawings
- Building and positioning of Bde ammo packages
- Pre-Positioned afloat Bde ammo packages

BCT WEAPONS LETHALITY

INFANTRY SYSTEMS



5.56mm
7.62mm
.50 CAL

0 m 500 m 1000 m 2000 m 3000 m 4000 m 5000 m 6000 m 7000 m 8000 m 30,000 m

MORTAR SYSTEMS



60mm
81mm
120mm

ICV SYSTEMS



40mm
.50 CAL
7.62mm
JAVELIN

MGS SYSTEM



7.62mm COAX
MAIN GUN

AT SYSTEMS



TOW

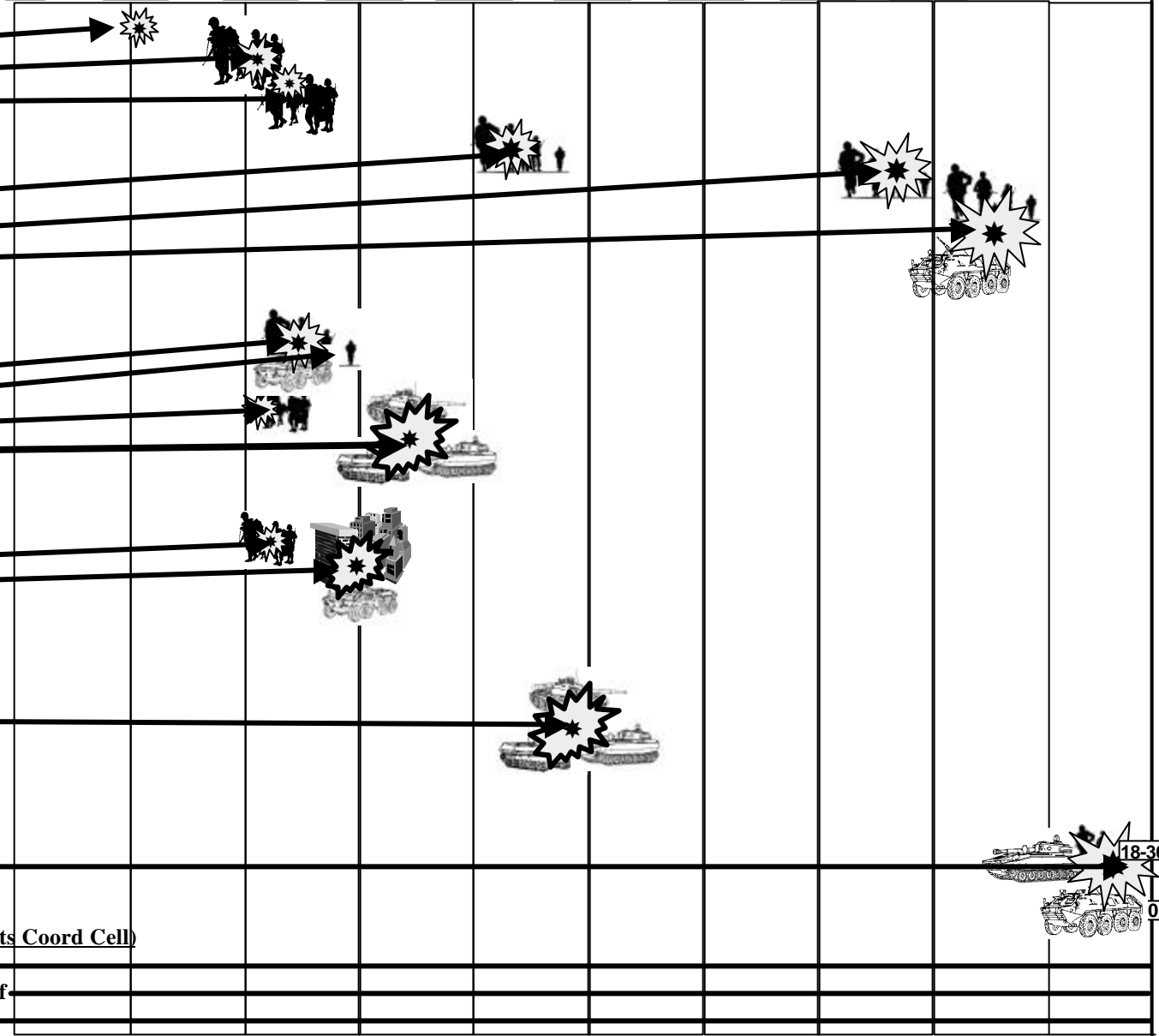
ARTILLERY SYSTEMS



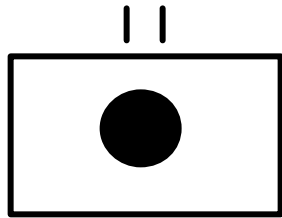
155mm

Non-Lethal Capabilities - (Fires & Effects Coord Cell)

- Info Opns (FA 30) • PA Off
- PSYOPs Off/NCO • CA/Space Ops Off
- Electronic Atk Off • BOLT



IBCT MAIN AMMO CONSUMERS

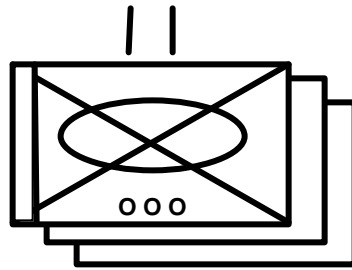


155mm
2 x 6 M198

155mm 20/FR?

- HE
- DPICM
- Smoke
- Illum
- Copperhead

MAC
Prop
Charges



120mm Mortar
HE
Smoke
Illumination

120mm PGMM

or

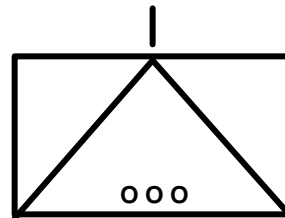
81mm Mort

- HE
- Smoke
- Illum

or

60mm Mort

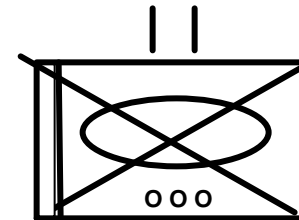
- HE
- Smoke
- Illum



TOW II

Security of
CAT 1
Ammo/MSLs

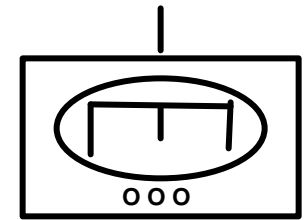
Javelin
On
ICV's



105mm Main gun

-Primary HE and
Bunker defeating
munitions

TOW
HAMMER until
Fielded (04)



MICLIC

Volcano 6/FR*

Mines
APERS
AT

Hornets
Demo Sets
Chg's
Caps
Det Cord

SO HOW
MUCH?

Small Arms/Crew Served

- 40mm Grenade Lchr, MG
- 40mm Grenade Lchr, Sgl
- .50 Cal MG, M2
- 7.62mm MG, M60/M240B,C
- 5.56mm MG, SAW

Individual

- 5.56mm Rifle
- 7.62mm Rifle (Sniper)
- 9mm Pistol
- Smoke x 4 Colors

Vehicle

- Hand Grenades
- AT-4's
- Vehicle Obscurant Ctg's
- Incen
- HC

Non-Lethal
Munitions/
Weapons

SO HOW MUCH?

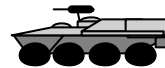
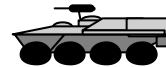
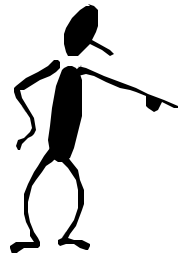
-Many factors drive “how much”-

- How much can they carry? – both to fly with and fit on vehicles
- How will we sustain them? (Reach back – velocity mgmt)
- How will we get it to them?
- How much do we think they will use?

(Level of intensity – what is the threat in which ammo will be used)

- How much can we afford? (Lethality & new technology)

-Who Decides?



- Unit Commanders, Corps, MACOMS, multiple agencies
- Several draft lists exist, (350 to 468 stons total)



What is Basic Load?
What the unit can carry organically

- **TAT** – To Accompany Troops – Enough to be carried on troops person
 - **Vehicle Combat Loads**
 - **Bulk** – any remainder that can be transported by the units organic vehicles and is not uploaded
-

IBCT specific

- **2nd TAT** – additional Small Arms Ammo for squads on LAV's
 - **Contingency Ammunition** – additional stocks that will Be shipped to the BSB ATP after initial deployment for storage
-

RSR's, CSR's being developed by CASCOM

**Driver of what category and method (platform)
of deployment is what will carry the ammo.**

IAV VARIANTS WITH HIGH EXPLOSIVES ON BOARD



Infantry Carrier Vehicle

Javelin, AT4, Grenades, 40mm



Engineer Squad Vehicle

Demo Kits, AT4, Grenades



Reconnaissance Vehicle

Javelin, AT4, Grenades, 40mm
Demo Kits



Medical Evacuation Vehicle



Mortar Carrier Vehicle

120mm, 81mm, 60mm, AT4, Grenades



Anti-Tank Guided Missile Vehicle

TOW missiles, Grenades



Command Vehicle

AT4, Grenades



NBC Reconnaissance Vehicle

AT4, Grenades

**Plus FA &
Combat Engineers**



Fire Support Vehicle

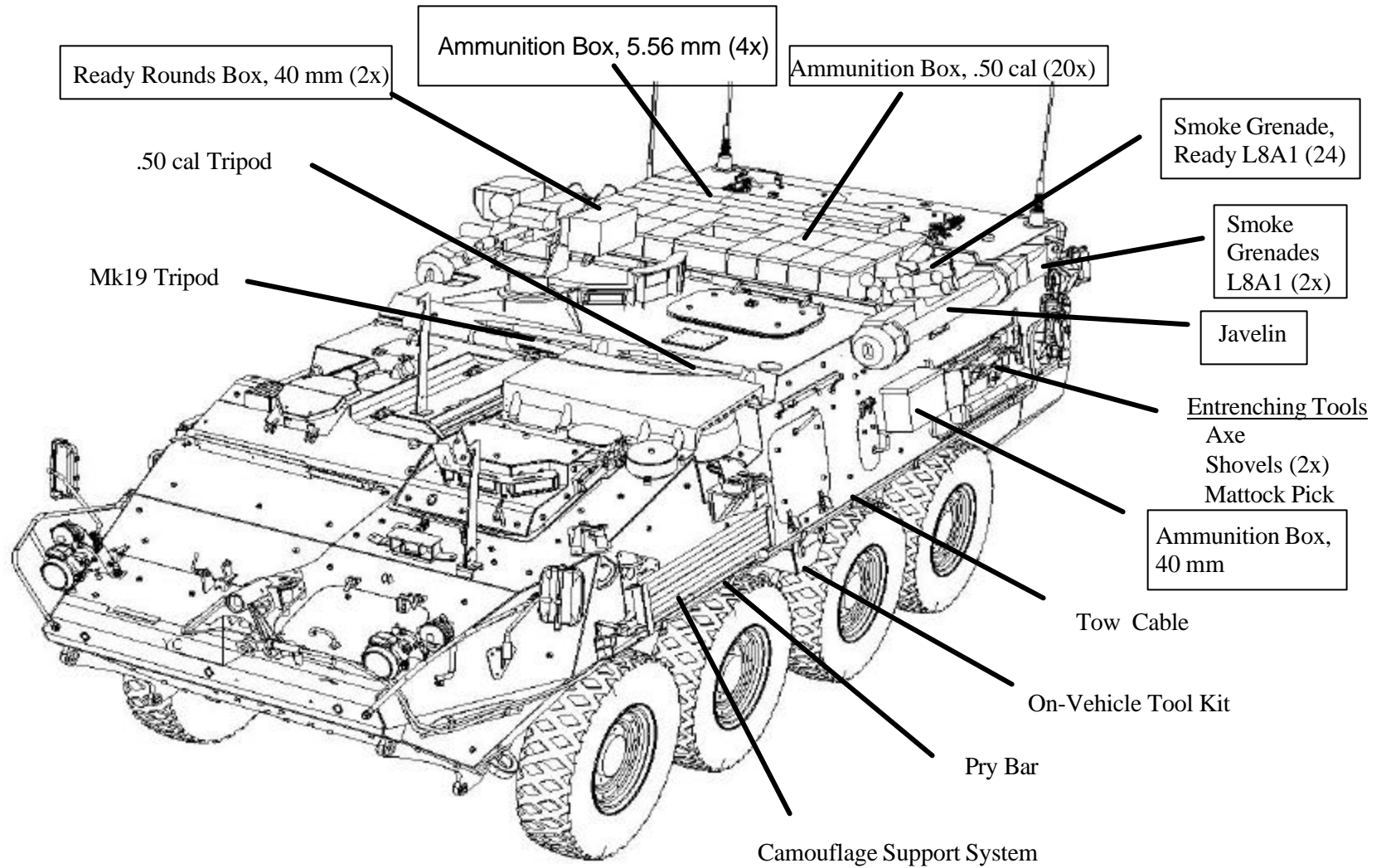
AT4, Grenades



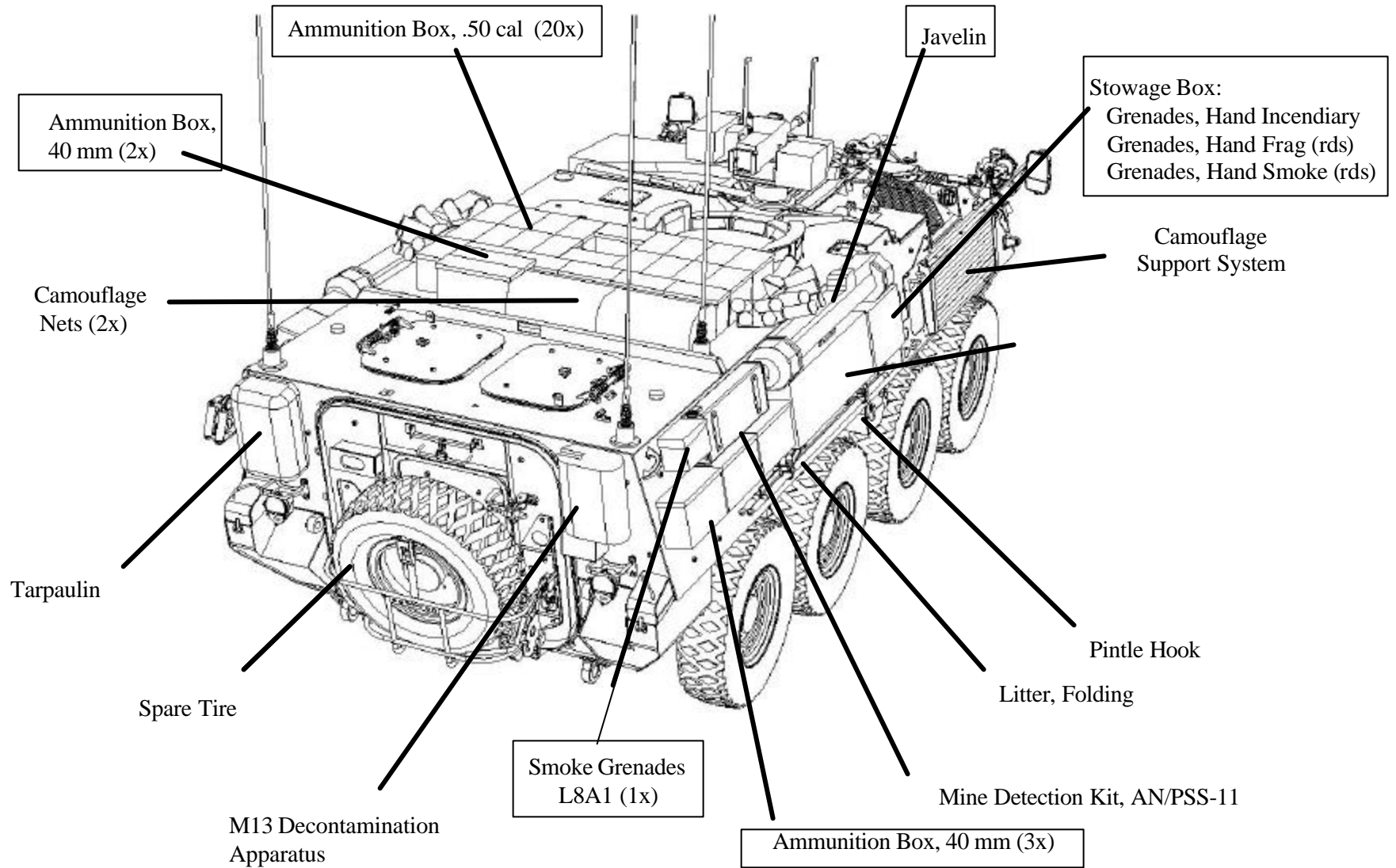
Mobile Gun System

105mm, Grenades

Draft Load plans



Draft Load plans



What is Basic Load?
What the unit can carry organically

-
- ~~• TAT – To Accompany Troops – Enough to be carried on troops person~~
 - ~~• Vehicle Combat Loads~~
 - Bulk – any remainder that can be transported by the units organic vehicles and is not uploaded

Don't Forget the Artillery and Engineers
IBCT specific

- ~~• 2nd TAT – additional Small Arms Ammo for squads on LAV's~~
 - Contingency Ammunition – additional stocks that will Be shipped to the BSB ATP after initial deployment for storage

**Driver of what category and method (platform)
of deployment is what will carry the ammo.**

Interim Brigade Combat Team Configured Loads

INF BN - SAA



15



INF BN – MGS/Missiles



18



INF BN - Mortars



22



RSTA



28



ARTY



32



Combat Engineers



2



-Mixture of DODIC's to fill vehicle/troop loads
- Pre configured because the BSB
not staffed to configure tailored loads
at the ATP

- Color coded for easy marshalling
- Numbered for quick reference as to contents
- Unique NSN for each load to enhance AIT tracking and Automation system entry

Can include 463L pallets



463L Configured Loads

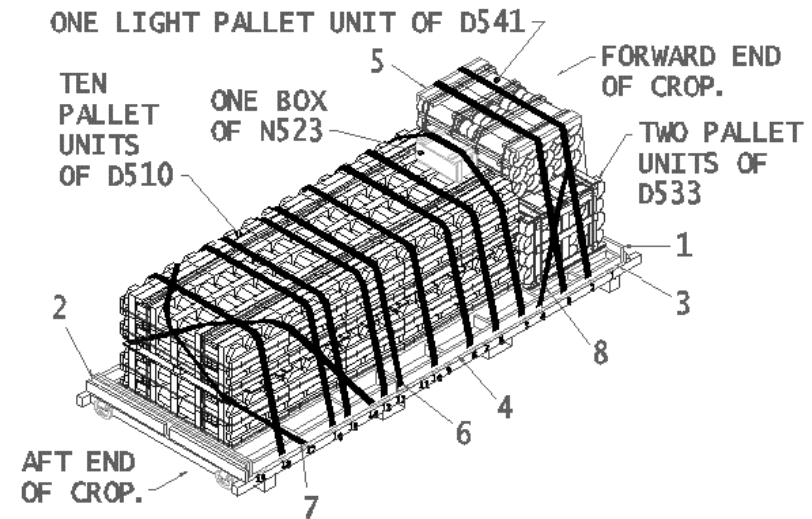
- Basic Load from Home Station
- From Depots until transport enhancements in place
- Requires reloading onto combat/trans Vehicles or CROPS at APOD

Usually limited to 3 stons each

Test proposed for Oct 01

CROPS Configured Loads

- HEMMT-LHS transportable
- Can be throughput straight to Brigade ATP, then to unit with Little to no reconfiguration
- Most of the present Configured loads On PREPO are too heavy for LHS
 - Requires enhancements for Economic air shipment
- Can be easily containerized for sea shipment
 - Requires LHS or PLS at APOD



Limited to 11 stons of cargo!!!

(HEMMT-LHS)

SHORTCOMINGS OF PRESENT AIR DELIVERY PLATFORMS

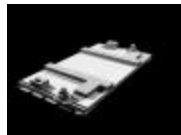
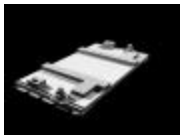
Current USAF 463L Pallet



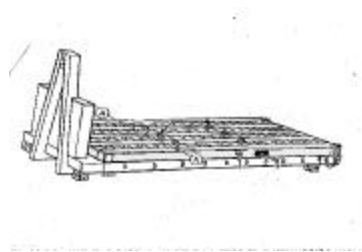
- Capacity limited to only 6000 lbs (vs 10,000) due to platform flexing and uneven weight distribution on aircraft floor
- No forklift pockets – must place pallet on wood risers to allow future forklift pickup
- Doesn't interface with Army trucks
- Requires heavy Materials Handling Equipment at APOD (K-loader and forklifts)

Potential Solutions:

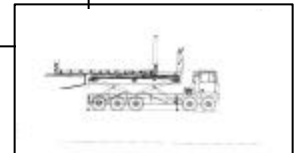
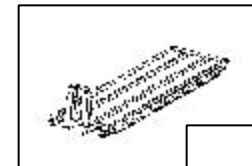
PLS Flatrack Slippers



Roller Platform For Air Delivery



Enhanced Delivery System – Air



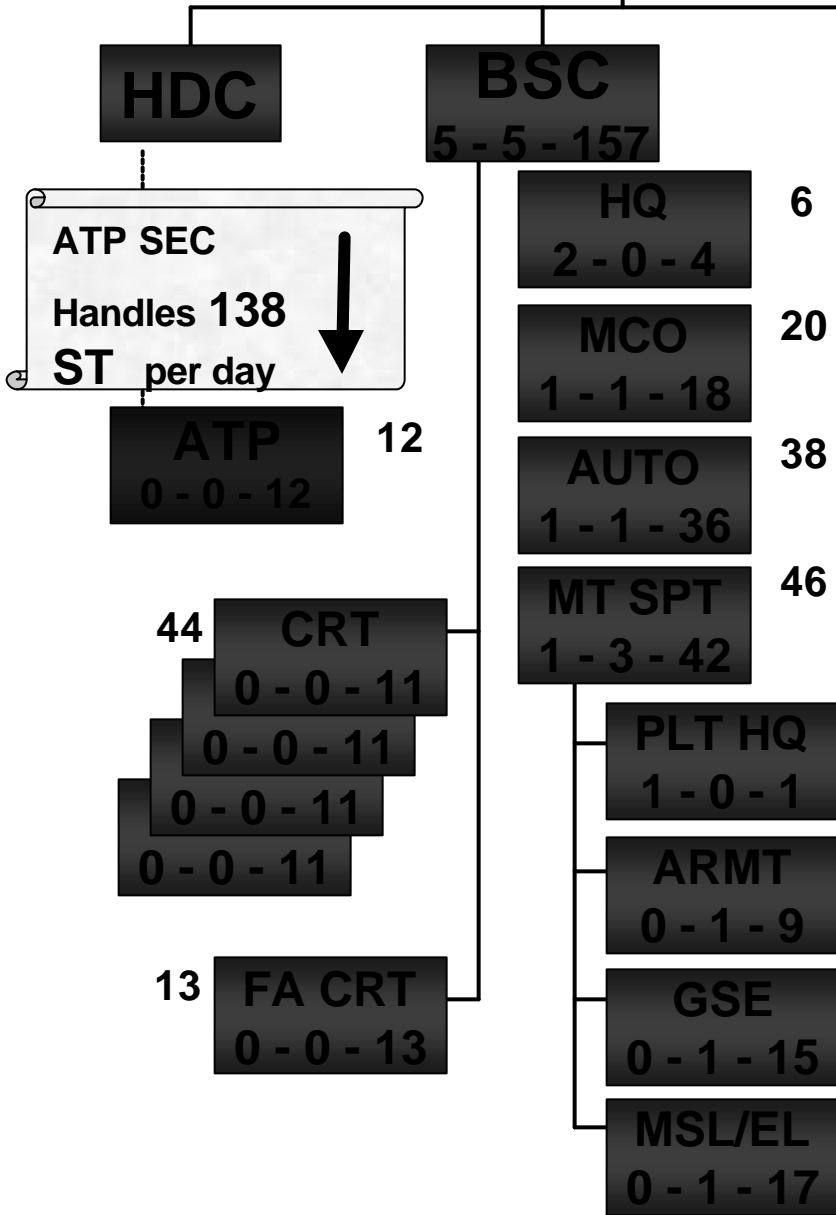
PLS SLIPPER – C17



BSB 382 Brigade Support Battalion

ATP

ONLY 3 HEMMT-LHS w/ TRLS!!!



HEMTT-LHS w/TRL

ATP PERSONNEL: 0 - 0 - 12	
AMMUNITION NCOIC	E6 55B30 1
AMMO INSPECTOR	E6 55B30 1
AMMUNITION NCO	E5 55B20 2
AMMUNITION SP	E4 55B10 4
AMMUNITION SP	E3 55B10 4

HMMWV

10K ATLAS FORKLIFT

No RTCH

No 50k Fklft

SMALL LOGISTICS TAIL

PHASE I: INITIAL DEPLOYMENT

At Ft. Lewis -

- ABL Stored for rapid upload
- On Notification, Fort Lewis and Bde upload turrets/wpn sys; Bde road marches to McChord AFB

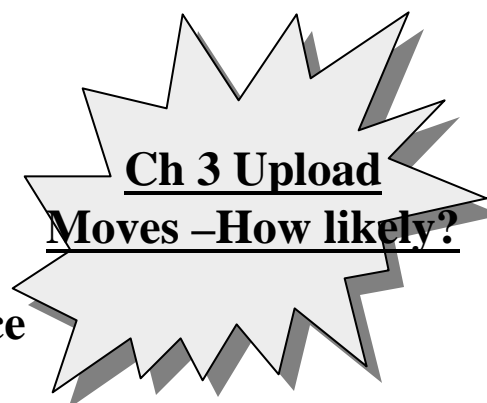
At McChord AFB -

Bde vehicles upload to Strategic deployment airframes

Bde deploys with Turret Loads/TAT

Remaining ABL (bulk) delivered to Bde in desired sequence

Bde arrives at APOD ready for action



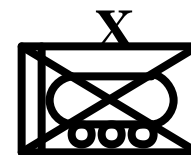
Ft. Lewis → McChord AFB

Ft. Lewis
OR Depot
OR CINC AOR

AND

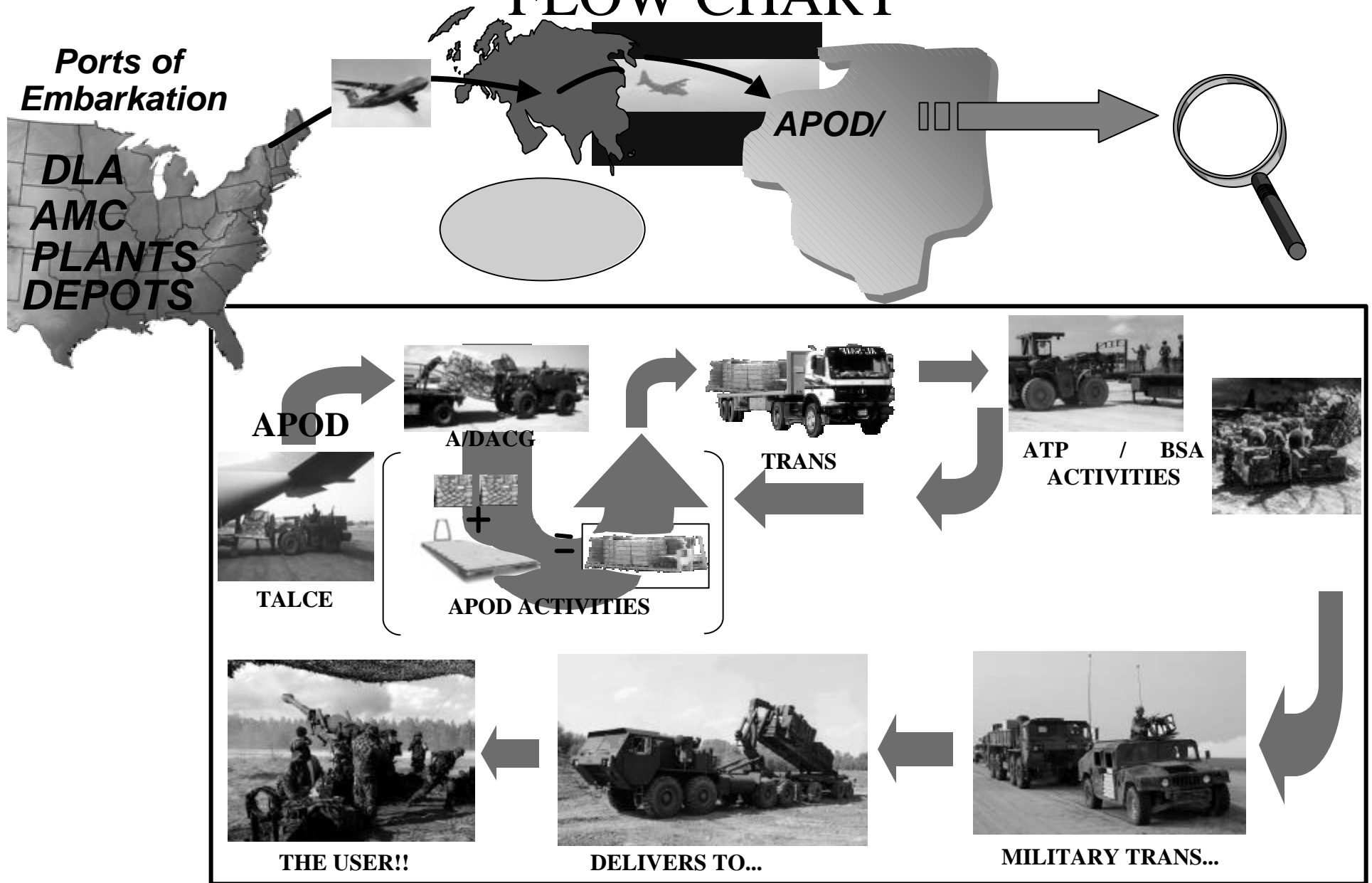
TROOP/EQUIP

REMAINING ABL



AO

IBCT AMMO DISTRIBUTION FLOW CHART



PHASE II: IMMEDIATE RESUPPLY (DAYS 4 - 10-30)

The Brigade and its ABL are in country and engaged, now -

➔ Ammunition Sources:

- CONUS Depots (AMC IOC Depots)
 - Depots will require 463L pallets/CROPs and approved Bde configuration drawings on-hand
 - Depots build Bde configured loads
 - Depots move configured loads to supporting airfield
 - Air Force uploads configured loads and delivers them to Bde APOD
- In-theater stocks (CINC), Intra-theater air, or surface (METT-T Dependent)?

➔ Conditions: (Still limited to C-130)

- Must still be in configured loads (463Ls or CROPs on slippers) (*)
- Must arrive at ATP on LHS-compatible flatracks (weight)
- Theater has no (or limited) ammo lift or distribution assets at or near Bde AO
- The BCT is competing with DOD-wide activities/distractions
- Retrograde of partially/consumed ammunition 463Ls/CROPs (*)



**BDE MAY
RELOCATE**

(*) This is critical since the ATP has no capacity to reconfigure and combat units have no internal log support

PHASE III: SUSTAINMENT SUPPORT

D+10-30 THRU END OF MISSION

The Brigade is established-- may or may not be autonomous.

➔ Ammunition Sources

- Intra-theater stocks (CINC)
- Pre-positioned afloat ships (AMC FSC)
- CONUS depots (AMC MAC depots)

➔ Conditions

- In-theater distribution system established
 - GS ammo spt in-theater/ISB
 - Heavy Lift Platoon at Theater SPOD
 - DS ammo spt near Bde AO
- LOGCAP Activated
- Must still be in LHS flatrack-configured loads
- Prepo afloat ships in need a new set of Bde compatible (LHS) SCLs?
- Recovery and retrograde of empty 463L pallets and flatracks
- Situational awareness enablers promote (re) supply capabilities
- The BCT continues to compete with DOD-wide Activities



AREAS OF SPECIAL INTEREST

PRECISION MUNITIONS

- SUPPLY
- TRANSPORTATION
- FIELD STORAGE
- RETROGRADE

SECURITY

- IN-TRANSIT
- IN STORAGE

INFORMATION SYSTEMS

- REAL-TIME REQUISITIONING
- FOXHOLE-TO-FACTORY INFORMATION SHARING

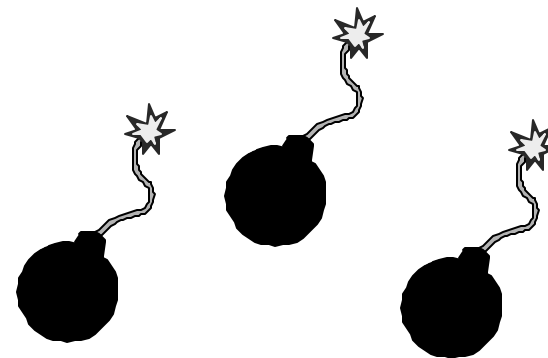
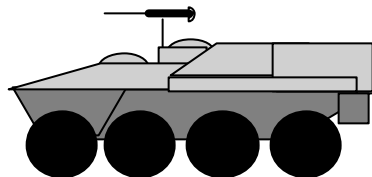
RML =

HORIZONTAL/VERTICAL
REAL-TIME
INFORMATION PIPELINE

IBCT AMMO ACTIONS IN PROCESS

◆ Ammo Basic Loads

- Composition
- Where Built
- Where Stored



- ◆ IBCT Ammo Consumption Rates (5 tons per day?)
- ◆ Develop Preconfigured Load Packages (463L/CROPS)
- ◆ How will the CINCs Support
- ◆ Design lighter, rugged, smaller packaging
- ◆ Ammo Support within FXXI Combat Units (No organic CSS)
- ◆ Integration with AOE Forces
- ◆ Precision Munitions (Mgt, Control, Security, Safety)
- ◆ Information Systems (real time requisition, Asset vs ITV)
- ◆ Transform Ammo Logistics for the Objective Force

IBCT AMMO ACTIONS IN PROCESS

- ◆ **Establish a quick reaction sustainment system (in process) at Tier 1 depots (airfields, commo, visibility to customers – battle books)**
- ◆ **Develop a Brigade Oriented “Direct Delivery” test – From the POST/DEPOT TO THE UNIT**
 - **Train as we intend to deploy and sustain (CROPS/463L pallets). 1st Test proposed for Oct 01.**
- ◆ **Establish and maintain a new item fielding database**
- ◆ **Non-Lethal Munitions –**
 - **Training items (Availability)**
 - **Deployment Packages (Sets, Kits and Outfits)**
 - **Fielding Schedules?**

Interim Brigade Combat Team Ammunition Logistics Integrated Concepts Team



QUESTIONS?



OSC - On the Line

Robert Colclough
DSN 347-4235
Colcloughr@lewis.army.mil