MANOEUVRE GROUP
Army Lists 21 & 26

British Armoured Division
Russian Motor Rifle Division

German Panzer Grenadier Division

RED STORM COLD WAR 1986 - 1990

United States Heavy Division

Russian Tank Division

German Panzer Division

INCLUDES:
VEHICLE AND WEAPONS SPECIFICATIONS FOR WARGAMERS

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INTRODUCTION

This Introduction provides a guide to the army listing you have purchased. We believe them to be the most comprehensive yet available. They include vehicle details including armour values. Although these are based on the wargame Manoeuvre Group they can be converted back to the equivalent thickness of Rolled Homogeneous (Steel) Armour (RHA) to allow use with other wargames rules.

Manoeuvre Group is a game that on table models typically, a company battle group. However with 1:144 scale models and open terrain larger formations are possible up to 2 or 3 company groups.

These listings go up to divisional level. There is a reason for this. Some resources you may want to use, artillery, specialist engineering etc are held at this level and this level of detail allows you to pick realistic amounts of such kit for your scenario. Besides you may want to have a surprise raid on divisional HQ. Blocking forces such a reconnaissance groups are held at divisional level.

In case you are not a Manoeuvre Group fanatic, the following is a guide to the data presented.

Organisations

At the squad level we have broken the element down into fire teams to suit the rules. The number of men in the squad is correct so you could re organise the squads if you need to, or if you are not using our rules.

Weapons Data

Terms and Abbreviations

A  Automatic Response System
AA  Anti Aircraft
AAGW  Anti Aircraft Guided Weapon
AB  Airburst
ABMS  Artillery Battle Management System
AC  Auto cannon
ADAD  Air Defence Alerting Devices
AEV  Armoured Engineering Vehicle
AFV  Armoured Fighting Vehicle
AGL  Auto grenade Launcher
Amph  Amphibious
AOP  Artillery Observation Post
ALO  Air Liaison Officer
AP  Armour Piercing
APC  Armoured Personnel Carrier
APCBC  Armour Piercing Capped Ballistic Capped
APDS  Armour Piercing Discarding Sabot
APFSDS  Armour Piercing Fin Stabilised Discarding Sabot
APFSDS DU  Armour Piercing Fin Stabilised Discarding Sabot Depleted Uranium
APHE  Armour Piercing High Explosive
APU  Auxiliary Power Unit
ARV  Armoured Recovery Vehicle
ATGW  Anti Tank Guided Weapon
ATG  Anti Tank Gun
A/T  Anti Tank
Aux Gen  Auxiliary Generator
Aux Tanks  Auxiliary Fuel Tanks
AVLB  Armoured Vehicle Launching Bridge
BB  Back Blast
BE  Base Ejection (smoke shell)
BMS  Battle Management System
Bn  Battalion
Bty  Battery
CB  Counter Battery
CE  Chemical Energy
Chain  Chain Gun
CHQ  Company Headquarters
CIS  Commanders Independent Sight
CLGP  Cannon Launched Guided Projectile
CO  Commanding Officer
Comp  Company
Cupola
Coaxial
DZB  Dozer Blade
ECM  Electronic Counter Measures
FC  Fire Control
FD  Final Defensive Fire point. Pre-defined priority target for an Artillery barrage
FLIR  Forward Looking Infra Red
Gen  Generator
GL  Grenade Launcher
GPS  Global Position System
GS Radar  Ground Surveillance Radar
Gun L  Gun Launcher
HE  High Explosive
HEAT  High Explosive Anti Tank
HESH  High Explosive Squash Head
HMG  Heavy Machine Gun
HGP  High Ground Pressure
HP  High Pressure
ICM  Improved Conventional Munitions
IFV  Infantry Fighting Vehicle
IINS  Image Intensifier Night Sight
IINV  Image Intensifier Night Vision
ILL  Illumination Shell
Inf  Infantry
IRB Smk  Infra Red Blocking Smoking
IRJ  Infra Red Jammer
IRNS  Infra Red Night Sight
IRNV  Infra Red Night Vision
KE  Kinetic Energy
LAD  Light Anti Armour Disposable
LAW  Light Anti Armour Weapon
Endurance - This is a typical amount of time a vehicle is expected to run for without refuelling if used continuously. Clearly this is a bit arbitrary but it is useful if planning a campaign, how short a time a unit is capable of operating before it needs to withdraw to refuel.

Smk Disch Smoke Discharges (types as below)

-1 Basic smoke not effective against thermal imaging or FLIR or Radar Guided, is effective against lasers.
-2 IR Defeating smoke effective against thermal imaging, FLIR and lasers & not effective against Radar guidance.
-3 IR Defeating Smoke and decoy flares. Effective against thermal imaging, FLIR, IR guidance systems and lasers.
-4 IR Defeating Smoke and decoy flares, with chaff aerosol. Effective against thermal imaging, FLIR and anti tank guided weapons using millimetric radar, IR guidance systems and lasers.

M Manual reaction to in coming ATGW by crew.
A Auto reaction to in coming ATGW attack. Only the target AFV Deploy defensive measures.

Armor Penetration

Armor is categorised by classes 0 to 20 (or higher if required) of Equivalent Rolled Steel Homogeneous Armour (RHA). Guns by the thickness of RHA they can penetrate at the given range (technically the thickness at which 50% of the rounds will penetrate).

For those of a mathematical bent Nominal RHA thickness 'Tc' for each class 'C' being defined as: -

Class 0 = Soft skin (technically 7mm or less RHA).
Armour classes 1 to 20 are defined by: -

\[ Tc = 8 \times 1.3333^{(C-1)} \] mm of Equivalent RHA

Where C=Armour class.

This gives nominal RHA thickness bands of: -

<table>
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<tr>
<th>Class</th>
<th>mm RHA</th>
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Example - a tank with a turret front armour equivalent to 143 mm of RHA would be Class 11 armour (nearest to class 11 at 142mm of RHA).
Amour Classification

Armour is classified by its ability to resist Kinetic Rounds (Solid Shot) and its ability to withstand Chemical Energy rounds (Shaped charges). This classification will also include any effects of Explosive Reactive Armour (ERA).

*Note* Chemical Energy rounds produce significant “Splash” of metal and flame which more easily damages externals even if they fail to penetrate. In addition a chemical round’s effectiveness increases when their penetration greatly exceeds the armour they are penetrating. With Kinetic rounds excessive penetration has little impact, the round goes straight through whatever. Hence engaging light armour with a MBT Gun, it is better to use a Chemical Energy round than a Kinetic Energy round.

Therefore an armoured vehicle will have a KE and a CE armour value.

Guided missile data gives the minimum range (warhead arming distance) as well as the maximum range.

Creating an Army List to play with Maneuver Group

Don’t start with a company battle group, a platoon is plenty. You can have a quick but still interesting game cheating and going down scale. You can play with a squad as one side’s force. However at this level most fire teams will be two men so their leadership casualties will mount quickly. If you do play at this level the squad leader becomes the equivalent of a Platoon leader in the proper game. DON’T TRY MIXING this level and the normal game, it’s too complex and the game breaks down.

The forces shown are their establishment. Rarely in the real world will they achieve this. For game purposes its acceptable to add or subtract an element from a platoon to get the balance of forces right. *Note* no unit should have a command element and less than three elements reporting to it, although for infantry this can include the command elements squad. If you do the game falls down as it’s too easy to remove suppressions. If the scenario demands you have this formation, increase the leadership of the command element to compensate. Not ideal but it is better to do this than not to.
List 21

British Armoured Division 1986 to 1990

Armoured Divisions of BOAR was deployed in northern Germany Controlling signals, 1,000 to 1,500 tons of supply a day engineering and medical requirements.

Armoured Division
Company HQ
CO & 100 admin staff in L/Rovers & trucks Main Cmd Post
XO & 100 admin staff in L/Rovers & trucks
Secondary Cmd Post (for moving or lost of main Cmd Post)

Divisional Signal Regiment
1x Signal Squadron in FV-439
2x Signal Squadron in trucks (secondary Comms Post)
Note Secondary Comms Post & Radio Relay (ie for moving or lost of main Comms Post)

Divisional Medical Regiment
Regt HQ Squadron 1x Sultan, with CO Cmd team
1x Sultan, with XO Cmd team
2x Samaritan Ambulance, 2x 1 ton L/Rover, 2x trucks
• Signal Troop 4x trucks
• Medical Stores Troop 4x trucks,
• Fitter Section 1x FV-432 with REME teams, 1x FV-434, 1x Heavy recovery truck

Forward Field Hospital
8x surgical teams & staff for up to 200 beds

Armoured Field Ambulance Squadron
Squadron HQ Troop 1x Sultan, with CO Cmd team
1x Sultan, with XO Cmd team
2x Samaritan Ambulance, 2x 1 ton L/Rover, 2x trucks
• Signal Troop 4x trucks
• Medical Stores Troop 4x trucks,
• Fitter Section 1x FV-432 with REME teams, 1x FV-434, 1x Heavy recovery truck

Wheeled Field Ambulance Squadron
Squadron HQ Troop 4x L/Rovers with CO & XO Cmd teams
• Fitter Section 1x FV-432 with REME teams, 1x FV-434, 1x Heavy recovery truck
• 3x Wheeled Ambulance Troops each with 5x FV-432 Ambulances
• Dressing Station 6x 1 ton L/Rover Ambulances
6x personnel trucks, 6x equipment carrying trucks

Note the Armoured field ambulance squadron pick up casualty from the task group and delivers them to their dressing station, these are collected by the Wheeled Field Ambulance Squadron and delivers them to their dressing station and finally to the field hospital or directly to field hospital by helicopter.

END OF THE ABOVE MEDICAL REGIMENT
**Divisional Aviation Regiment**

**Regt HQ Squadron**

HQ Troop with CO, XO, ALO, Cmd teams
- Signal Troop 4x trucks
- Stores Troop 4x trucks
- Material Transport Troop 4x heavy trucks

**Workshop Squadron**

HQ Troop CO, XO Cmd teams in trucks & L/Rovers

**2 Utility Squadrons**

HQ Troop CO, XO Cmd teams in trucks & L/Rovers
- 1x Tanker Section of 4 tankers

Note: Operating in their forward arming & refuelling point
- Flight of 4x Gazelle (The CO in one of the Gazelles)
- Flight of 4x Lynx AH-1 (2 Lynx armed with TOW-71C)

**Divisional Support Squadron**

**Squadron HQ Troop** CO Cmd team in L/Rovers
- Divisional stores troop 3x Stores Section of 4x trucks
- C.S Troop 1x Drops Section of 4x trucks
  - 2x Tankers Sections of 4x Tankers
  - 1x Bowers Section of 4x water bowers
  - 1x Material Handling Equipment Section of 4x Heavy trucks & articulated trucks

Note: MHE Section transports Bulldozers etc.
- Divisional IRG Troop 1x IRG Section of 4x trucks
  - 1x ERG Section of 4x trucks

Note: CS is Combat Support
IRG is immediate replenishment group.
ERG is emergency replenishment group
(ERG for troops in combat and running out of ammo.)

**3x Brigade Support Squadrons** each with

**Squadron HQ Troop** Cmd team in L/Rovers
- Fuel Troop 3x Tankers Sections of 4x Tankers, 1x Drops truck Section of 4x trucks
- IRG Troop 4x Sections of Drops trucks of 4x trucks, 1x Tanker Section of 4x Tankers,
- C.S Troop 5x Sections of 4x 8ton trucks
  - 1x Material Handling Equipment Section of 4x Heavy trucks & articulated trucks

Note: Each of the Brigade Support Squadron are attached to a armoured brigade (1 delivers as 1 Reloads)

**END OF THE ABOVE DIVISIONAL AVIATION REGIMENT**

**General Support Logistic Regiment**

**Regt HQ squadron** CO, XO Cmd Troop & Admin staff

**2x Artillery support Squadrons** each with

**Squadron HQ Troop** CO Cmd team in L/Rovers
- A-Troop 3x Fuel Sections of 4x Tankers
  - 3x Drops Sections of 4x trucks
- B-Troop 3x Drops Sections of 4x trucks

**Supply Squadrons**

**Squadron HQ Troop** CO Cmd team in L/Rovers
- Combat Supply Troop 12x articulated trucks
- Divisional Logistic Recovery Group REME Depot for vehicle maintenance, operating Heavy recovery trucks
- DSA group (Main Supply Depot in building & bunkers)

**Tank Transporter Squadron**

**Squadron HQ Troop** CO Cmd team in L/Rovers
- Tank Transporter Troop with 17x Tank Transporters

Note: General support logistic regiment supplies the artillery

**END OF THE ABOVE GENERAL SUPPORT LOGISTIC REGIMENT**

**Armoured Engineering Regiment**

**Squadron HQ** 2x FV-432, with CO, XO Cmd teams
- Signal Troop 4x FV-439 (signal version of the FV-432)
- Stores Troop 4x Heavy trucks
- Fitter Section 1x FV-432 with REME teams, 2x FV-434,

**3x Engineering Field Squadrons** each with

**Squadron HQ Troop** 1x FV-432, with CO Cmd team
- 1x FV-432, with XO Cmd team
- Fitter Section 1x FV-432 with REME teams, 2x FV-434,

**3x Armoured Engineer Troops** each with

**Troop** 1x FV-432 with TC, 2x NCO, Radioman, 2x Fire teams SAW of 2 men, 1x 51mm mortar
2x trucks carrying a Bar minelayer, mine scraper & pallets of other engineering materials.
- 3x FV-432 Sections each carrying 1x Engineering infantry squad of 9 men in 1x fire team SAW team of 2 men & 3 rifles 1x fire team of 1 LSW & 3 rifles or 3x LAW-80 A/T MAD, off route mines
- 1x Field Support Troop with

**Field Troop** 1x FV-432 with TC, 2x NCO, Radioman, 1x Engineering team of 5 rifles
5x CET-180, 1x truck, 1x Digger
3x AVRE Centurion MK-5

**END OF THE ABOVE CLOSE SUPPORT LOGISTIC REGIMENT**
**Field Support Squadron**

**Squadron HQ Troop** 1x FV-432, CO with Cmd team

1x FV-434, XO with Cmd team

- Fitter Section 1x FV-432 with REME teams,
  1x FV-434, 1x CRARRV
- Bridging Troop with 3x AVLB Chieftain
- Plant Troop with 1x Crane, Tractors & Diggers
- Resource Troop with 3x Cranes, 3x 8ton trucks with
  4x Pioneer Squads of 9 men plus equipment

**Note** this unit carry’s out engineering at division level.

END OF THE ABOVE ARMOURED ENGINEERING REGIMENT

**2x REME Equipment Support Battalions** each with

**Battalion HQ Company**

**Close Support Company** with

- Forward Repair Group (REME Workshop) with
  FV-434 or Sampson, FV-432 carrying a REME team
  these repair on-site in as safe area as possible.

**Note** this Company operates in the forward areas of a
Brigade, for game purposes. Repair any vehicle with 2 hours or
less work as required.

- Medium Repair Group (REME Workshop) with
  FV-434 or Sampson, FV-432 carrying a REME team
**Note** these repair recovered vehicles that can not be repair by
the FRG and operate behind the FRG, for game purposes.
Repair any vehicle with 8 hours or less work as required.

**General Support Company**

This company undertakes major repairs & battle field
replacements as well as supporting the CSC

**Note** this operates in the rear of a division to minimise
vulnerability and to maximise productivity. For game
purposes. Repair any vehicle with 24 hours or less work.

END OF THE ABOVE REME EQUIPMENT SUPPORT BATTALIONS

**Divisional Artillery Brigade**

**Regt HQ Battery** 3x Sultan, CO with Cmd team

3x Sultan, XO with Cmd team

4x FV 432 FACE/Counter Battery Radar

4x FV-432 Cymberline Radar

- Fitter Section 1x FV-432 with REME teams, 2x FV-434

**Medium Artillery Regiment**

**Regiment HQ Troop** 3x Sultan, CO with Cmd team

3x Sultan, XO with Cmd team

4x FV 432 FACE/Counter Battery Radar

- Fitter Troop 1x FV-432 with REME team, 2x FV-434,
  1x Chieftain ARV,

- **Air Defence Battery**

**Battery HQ Troop** Sultan with CO Cmd team

- 2x Air Defence Troops each with
  4x sections of 4x Spartan each with
  1x Javelin SAM team of 2 men

**3x M-109A2 Medium Artillery Batteries** each with

**Battery HQ Troop** 1x Sultan, with CO Cmd team,

1x Sultan, with XO Cmd team

3x FV-432 each with AOP team

- **2x Artillery Troops** of 4x M-109A2 with 56rds carries
  per gun of (ICM, HE, AB, Smoke BE/WP, ILL)
**Note** Burst rate fire 3rds per minute,
Continuous fire 2rds per minute. ICM become a nuisance
mixed minefield were it falls, Range 18,100m.

END OF THE ABOVE MEDIUM ARTILLERY REGIMENT

**2x Field Artillery Regiments** each with

**Regiment HQ Troop** 3x Sultan, with CO Cmd team

3x Sultan, with XO Cmd team

4x FV 432 FACE/Counter Battery Radar

4x FV-432 Cymberline Radar

- Fitter Section 1x FV-432 with REME team 2x FV-434

**3x Abbot Field Batteries** each with

**Battery HQ Troop** 2x Sultan, with CO, XO Cmd team

3x FV-432 each with AOP team

- **5x Artillery Troops** each with
  5x Abbots (HE, AB, Smoke BE/WP, ILL)
  First 36rds of the above carried per gun + 4 HESH,
  Burst rate fire 12rds per minute,
  Continuous fire 3rds per minute. Range 17,000m.

END OF THE ABOVE FIELD ARTILLERY REGIMENT

END OF THE ABOVE DIVISIONAL ARTILLERY BRIGADE

**2x Armoured Brigades** each with

**Brigade HQ Squadron** 1x Sultan with CO Cmd team

1x Sultan with XO Cmd team

1x Sultan with ALO Cmd team

1x Sultan with Artillery XO Cmd team &
1x Sultan with Comms Cmd team

1x Spartan, 4x L/Rovers

**Signal Squadron**

- 3x Signal Troops in trucks or FV-439
**Note** Secondary Comms Post & Radio Relay
(ie for moving or lost of main Comms Post)

**Armoured Field Ambulance Squadron**

**Squadron HQ Troop** 1x Sultan, with CO Cmd team

1x Sultan, with XO Cmd team

2x 1 ton L/Rover, 2x trucks

- **REME Section** 1x FV-432 with REME teams,
  1x Sampson

- 3x Armoured Ambulance Troops 1x Sultan, 4x Samaritan

**Dressing Station** 6x 1 ton L/Rover Ambulances

6x personnel trucks & 6x equipment carrying trucks

**Note** The squadron is attached to the units within the brigade
Brigade Support Squadron each with

Squadron HQ Troop CO Cmd team in L/Rovers
- Fuel Troop 3x Tankers Sections of 4x Tankers, (12)
  1x Drops truck Section of 4x trucks
- IRG troop 4x Sections of Drops trucks of 4x trucks, (16)
  1x Tanker Section of 4x Tankers,
- C.S Troop 5x Sections of 4x 8ton trucks (20)
  1x Material Handling Equipment Section of
  4x Heavy trucks & articulated trucks

Note Each of the Brigade Support Squadron are attached to
a armoured brigade (1 delivers as 1 Reloading).
CS is Combat Support.

THIS IS REPEATED as it is detached out of the Close
Support Logistic Regiment to resupply the Armoured
Brigade.

1x Armoured Regiment
Squadron HQ Troop 1x Sultan with CO Cmd team
  1x Sultan, with XO Cmd team
  2x Challenger-1, 2x ferrets
- Fitter Section 1x FV-432 with REME teams, 1x
  FV-434, 1x CRARRV,
- 4x Reconnaissance Sections of 2x Scimitar
- Anti Tank Troop with
  1x Anti Section 1x Ferret 2/3, 4x Striker
  1x Anti Section 1x Ferret 2/3, 5x Striker

END OF THE ABOVE ARMOURED REGIMENT

2x Armoured Infantry Battalions each with

Battalion HQ Platoon 1x FV-432, CO Cmd team
  1x FV-432, XO Cmd team
  1x FV-432, AOP Cmd team
  1x Ferret 2/3
- Fitter Section 1x FV-432 with REME teams, 1x
  FV-434
- 4x Reconnaissance Sections of 2x Scimitar

Mortar Battery

Battery HQ Platoon 1x FV-432 with
  CO, XO 2x Radioman, Cmd team
  3x Spartans with MOP teams
- 4x Mortar Sections each with 2x FV-432M,
  Up to 320rds of HE, AB, Smoke BE/WP, ILL,

Note A Mortar section Can be detached down to a infantry
company as required. Burst rate fire 15rds per minute,
Continuous fire 4rds per minute. Range 200-5,660m.

Anti Tank Company

Coy HQ Platoon 1x FV-432 with
  1x CO, 1x XO & 2x Radioman, Cmd team, 1x Ferret 2/3
- 3x Anti Tank Platoons each with
  1x FV-432 with Cmd team of PC, Radioman,
  1x Ferret 2/3 (with 51mm stored as below)
  1x 51mm mortar with 12rds ILL, flare WP-Smoke,
  2x Anti Tank Sections 1x Ferret 2/3, 2x FV-432 each with
  2x Milan-2 ATGW teams of 2 men with 6 reloads each.

3x Armoured Infantry Company’s each with

Company HQ Platoon
  1x FV-432 each with CO, 2x Radiomen, NCO, Cmd team
  1x FV-432 each with XO, 2x Radiomen, NCO, Cmd team
  1x Ferret 2/3
- Fitter Section 1x FV-434
- 3x Armoured Infantry Platoons each with
  1x FV-432 with PC, NCO, Radioman Cmd team
  2x SAW teams of 2 men & 1 marksman
  1x 51mm mortar with 12rds ILL, flare WP-Smoke
- 3x FV-432 Sections each with
  1x infantry squad of 10 men in
  3x fire team of 3 rifles & 1x SAW team of 2 men
  1x fire team of 3 rifles, 1x LSW, 1x A/T Gunner
  M-2/3 Carl Gustav MAW, rifle from above as No 2

Note Fire team must reorganise to use M-2/3 Carl Gustav
MAW as 2x rifles, 1x LSW, 1x A/T team of 2 men. Rifles
have LAW-80 MAD for Anti Tank Role, 6 stored in AFV.

END OF THE ABOVE INFANTRY BATTALIONS

On a war footing the above Armoured Brigades would
cross attached like this at Battle group level.

2x Armoured Brigade each with

Brigade HQ Squadron 1x Sultan with CO Cmd team
  1x Sultan with XO Cmd team,
  1x Sultan with ALO Cmd team
  1x Sultan with Artillery XO Cmd team &
  1x Sultan with Comms Cmd team
  1x Spartan, 4x L/Rovers

Signal Squadron
- 3x Signal Troops in trucks or FV-439

Note Secondary Comms Post & Radio Relay
(ie for moving or lost of main Comms Post)

Armoured Field Ambulance Squadron
Squadron HQ Troop 1x Sultans, with CO Cmd team
  1x Sultan, with XO Cmd team
  2x 1 ton L/Rover, 2x trucks
- REME Section 1x FV-432 with REME team,
  1x Sampson
- 3x Armoured Ambulance Troops 1x Sultan, 4x Samaritan
- Dressing Station 6x 1 ton L/Rover Ambulances
6x personnel trucks & 6x equipment carrying trucks

Note The squadron is attached to the units within the brigade.