OP COM
Operational Map Combat in World War II

MASTER RULESET

Operation Market Garden 3 Version
Update 1 March 2004
CONTENTS

1. Introduction

These rules started out as a set of guidelines for the operational megagame *Operation Market Garden*. This game was run twice, once in 1988 and again in 1993. In the course of these outings, the rules altered and benefited from considerable feedback from participants.
The game system I offer here is a distillation of that feedback from users, together with additional thoughts and research.

It is intended as a generic map gaming system for WW2 operations in the Western Europe Theatre, that is, covering operations from Normandy to the Baltic. With some alteration they might be suitable for the campaigns in Italy, although the terrain and operational practices make that theatre sufficiently different to make a rethink of the rules a good idea.
The rules are *not* suitable for the Eastern Front or the Far East. The underlying assumptions vary far too much.

Operation Market Garden was a large and complicated operational game. It involved forces down to battalion level and headquarters up to Corps. When running such a game there is a lot to bear in mind, and the game system has to be robust in order that things progress smoothly. Of course, these rules do not need to be used only in the context of a full sized 100 player megagame - there are plenty of smaller operations that they could as easily be used for in the context of a club game for half a dozen players.

In addition to the reasonably straightforward aspects of ground combat the rules consider the problems of air-ground operations (both close support and airborne operations) and logistics (hopefully not quite as boring as some folk make out!).

I hope you find this system usable and useful. Please send me feedback on how you get on with it, or just to ask questions. I will be happy to answer emails.

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Dedication:
These rules have had influences from a number of people of the years - many more than could be usefully listed. I'd like to dedicate these rules to the late Steve Hale (1955-2000) who introduced me to wargaming over 30 years ago, was a founder member of Chestnut Lodge Wargames Group and was one of the most important influences in the original runs of the Operation Market Garden Megagame.

2. Notes on Running a Game

This system assumes a standard set up for map games. This consists of a minimum of three maps, one for each side, and a master map. The scale is unimportant, so long as they are clearly marked, and easy to update.

It follows therefore that the game can be played with a minimum of three participants - one Game Control and two players. It is more fun if there are more players and teams of three per Divisional HQ (or the equivalent) and 1 control per team is ideal. With more players, or for larger and more complex battles, higher headquarters can be introduced and divisional teams need to be a little larger.

The Game Control's role is to keep the game going and to make sure the players feel that they are experiencing as realistic a simulation of the battle as possible.

For this reason Control should never refer to the game mechanisms when talking to players. All reported battle results should be, as far as practicable, in 'real-world' terms. Even if the players know all about how the combat system works, this is important because it helps with the 'willing suspension of disbelief' aimed at in good operational wargames.

As Control you may often feel the urge to inject some arbitrary ruling at various times. Try to resist the gratuitous exercise of your power. If you feel that something has to be ruled on that isn't in the rules, then that is fine - the rules are not exhaustive - but in the interests of consistency this should be kept to a minimum.

Often you will be called upon to apply common sense and a knowledge of inherent military probability to problems. The main aim of these rules is to provide a framework upon which you can successfully base that assessment.

3. Scales, Level and Resolution

The smallest represented unit is the Battalion (or equivalent)
Players represent the staff at Divisional level or higher.
Each game turn is half a day.
Map scales etc. will vary with the map used, but counter sizes must match the map scale. Assume a counter frontage of around 1km per battalion or the equivalent.

4. Sequence of Action

Each full turn should take no more than about 25 minutes to adjudicate, preferably much less.
For games with just one divisional team a side a game turn should take around 15 minutes to adjudicate.

Control Actions	Max Time Taken
1. Team Control takes players written orders for the turn on a standard proforma, reads them, clarify unclear points and prepares to work out the results.	2-3 minutes
2. When Control are ready, the Team Controls move all counters on master map, and then assess the results of combat.	No more than 5-10 minutes
3. Team Control orally brief the players on the outcome of combat. (This can be concurrent with 2. above if telephones &/or radios are available).	2-3 minutes
4. Map Control position new reinforcement and supply counters on the main map for the coming move.	3-5 minutes
	Total 12-21 minutes
Player Actions:	
5. Clarify orders when requested by Control.	
6. While Control are working out the update, prepare as much of next orders as possible and communicate with other HQs and superiors/subordinates. Carry out map updates.	
7. Be prepared for battle updates as they occur.	

5. Orders

Each turn players will issue orders for units or groups of units with the same task (i.e. battlegroups, regiments, brigades). An order sheet is then passed to the team Game Control person who check they can understand it, before going to the main map and implementing the orders.
Game control then annotate the order sheet as the combat is resolved and return to the players to report.

A typical sheet might look like this:

The headings are mostly self-explanatory, except 'general intentions' which are:

Action	
Breakthrough	This is only available to armoured units. An all out attack intended to break through the enemy formations and continue movement on the other side. This can mean the units fight more than one action during the turn, and will wear out units faster.
Attack	Attack the units in the direction indicated in orders, with the intention of dislodging or destroying them and taking an objective.
Probe	Intensive patrolling to determine the location and extent of units to the front. The unit will advance until it makes contact then conform to the enemy's deployment, when found. This also give some unit identification of the facing units.

Hold	Dig in and remain in current positions. If specified in orders this might be a 'stand fast' or 'hold at all costs' in which case the unit might take additional casualties rather than be pushed back.
Move	Move from 'A' to 'B'. If enemy encountered, the unit stops and does not attack.
Prepare	Prepare for an attack. This is essential if an attack is to be successful.
Posture	
Tact	Tactical – ready for combat deployed and expecting trouble.
Non-Tact	Non-Tactical. Not ready for combat, not expecting trouble. Ammunition stowed, weapons slung. But allows faster movement.
Rest	In some cases units can recover fighting effectiveness by resting. Typically this needs to be for several days before any improvement is felt.

6. Unit Movement

Movement
As a guide, the ABSOLUTE MAXIMUM movement distance, in kilometres, on the map are shown below.
Individual unit movement will almost always be much less than this maximum, especially the road movement rates which can be affected by weather, congestion, choke points and other road conditions

REMEMBER, THESE FIGURES REPRESENT
THE UNINTERRUPTED MAXIMUM MOVE.

Troops	Ground	Tactical	Non-tactical	Road Column	River Crossing
Horse drawn Infantry & Paras.	All terrain	15	25	30	Possible
Mech. or motorised	Close	18	28	64	impossible
	Open	30	32	64	impossible
Tanks or SPGs	Wood/ Town	18	28	64	impossible
	Marsh	8	18	64	impossible
	Open	30	32	64	impossible
Motor towed arty	All terrain	-	-	75	impossible
Recce and lt. tanks	Close	18	28	100	possible
	Open	30	35	100	possible

Obviously, movement can be interrupted for combat. Units which have moved for more than half a turn cannot fight in that turn (i.e. they fight in the next turn).

Armoured units which are *breaking through*, may move on after a combat - depending upon how fierce the fighting was.

Examples of things that slow down unit movement
- Moving down narrow, twisty lanes
- Coming under fire
- Traffic jams
- Bad weather
- Preparing for an attack

River Crossing
On the operational maps only river obstacles of major importance are marked. There are numerous minor obstacles that have been factored into the movement rates.
[NB: If you are using a real map, you should ignore minor streams and waterways.]
These river obstacles can only be crossed at a bridge by units indicated above as 'River Crossing = impossible'.
Other units may cross canals and minor rivers, but not major rivers without a marked bridge (using minor unmarked footbridges and locks or otherwise improvising).

Most bridges have a weight classification. For most purposes we are interested primarily in whether tanks can cross. Therefore there are only two classifications of bridge/Ferry:

a. Light bridge/Ferry - equates to the Class 9, and is only passable for infantry and transport units (but not loaded tank transporters).

b. Heavy bridge/ferry - equates to a class 40 Bailey bridge (or larger) and is passable to all types of unit

Rail Movement
It takes one turn to embark an infantry unit, two turns to embark a unit with tanks or trucks.
It takes half a turn to disembark an infantry unit, or a whole turn for others.
Embarkation must be done at a town or village on the railway line.
Disembarkation can be done anywhere for infantry – but must be at a town/village for vehicles.
A train is given a lift capacity in Unit Points, typically around 5-10.
Once embarked the unit may move down the rail network freely, taking one complete turn to go as far as it likes.

The availability of trains to move troops will be laid don in the scenario.

Passing By

There are circumstances when units may wish to pass through the enemy, or between units where there appears to be a gap. This needs careful treatment, because this sort of infiltration or exfiltration did sometimes happen.

As a general rule of thumb, it is not possible to pass by an enemy unit closer than 2km in the open. The movement is stopped, as if they had bumped into the unit directly (unless they have orders to attack, of course).

If the movement is through woods, or at night, then the passing distance is 1km.

Units in contact cannot 'rub past' an enemy unit they are in contact with, without fighting it. They must break contact first.

Night Movement.

The first part of the morning turn, and the last part of the afternoon turn are, obviously, night-time.

If orders explicitly require night movement, then movement is limited to a ceiling around ¼ of the maximum moves permissible.

7. Traffic

Unit Points

At any major crossing, the bridge or ferry will be given a capacity in terms of
'Unit Points Per Turn'

Each unit is given a score (indicating its size in vehicles). During any major troop movement, bridges will form the main choke points for traffic, and this will be reflected in the game.

The unit points are marked on the counters concerned.

Game Note: If you want to calculate the size of units for yourself, for your own games, as a very rough rule of thumb I have used the scale of 1 Unit Point = approx 50 vehicles of all types.

The capacity of typical river crossings and choke points, in points per phase, will be:

Crossing type	Capacity in points
Civilian Ferry	4
Main road bridge	up to 120
Minor road bridge	20-50
Bailey bridge	40
Rail bridge	15-25
Light military bridge	5-25
Military ferry	5

Other choke values:

Route type	Capacity in points
Town with "crowds of cheering civilians"	50
Main Road, double lane	up to 120
Main road, single lane	up to 60

The capacity rating for each area will be marked on the main umpire map, and the information should be available to defenders who have been in the area for a while, or to units that conduct a terrain recce of the area.

None of these figures are hard and fast, of course.
Circumstances can dramatically alter the capacity of a given river crossing. The above figures must be regarded as only a general guide and you must use your judgement as the game progresses.

8. Blowing Bridges

It was common for the German army to prepare bridges for demolition, and for the various airforces to destroy bridges without reference to ground forces.

Often the destruction of a bridge was out of the hands of commanders at the player level, so we have a die roll for it.

Unless otherwise defined in the scenario, bridges may dice to blow if fought over, or you may test at Map Control's discretion should the circumstances warrant it. Roll a 1 on 1d6 to blow.

Once tested and failed to blow, the bridge should be assumed 'safe' if checked or passed over by an Allied unit - mark the bridge 'safe' on the master map to prevent another umpire from re-testing it.

9. Combat

Unit Status

In this game we use the *'Patel Profiling System'* for unit status.

At any given point in the battle all units have a status level, from 0 to 10.
It is important to realise that these levels are **NOT strength points**, although strength is a consideration, neither are they solely combat effectiveness, they are an amalgam of the two.

A unit may take a number of step reductions as a result of combat which usually means a reduction in status - although this is not a 1:1 relationship. For example, and infantry battalion might have the following status profile:

Step Reduction	Undamaged 0	-1	-2	-3	-4
Status Level	5	3	2	1	No longer an effective unit

See Annex A for a summary of typical unit profiles.

This profiling system means that a unit counter used on the master map can show a series of numbers, like this:

$$5 - 3 - 2 - 1 - 0$$

and Control can cross off a number to represent a step loss, and see the resulting Status Level.

Example Master Map Counter

Main Formation → Indep Pol Bde   1 ← Unit Size

Unit short title → 1 Pol

Unit type symbol → [symbol]   Log   2 ← Logistics lift

Status points profile → 6 - 6 - 5 - 4 - 3 - 3 - 0
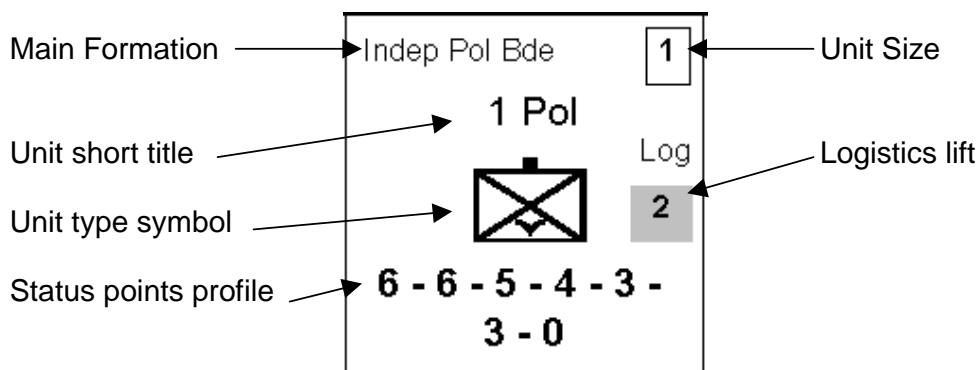
If you are unsure of the unit type symbols used, see annex B

Example Player Map Counter

The players should never be given data on the exact unit status numbers. Therefore, where players use map counters at all, they should look like this:

Support Units

Some units have a primarily support role. In this case the status profile will appear in square brackets, thus: **[5 – 3 – 2 – 1 – 0]**

This means that the unit's status value can only be used in attack or defence in conjunction with another unit of at least equal status.

Defence only units.

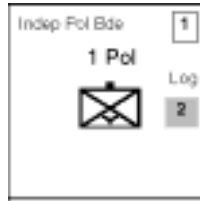Status profile values in brackets indicate that they can only be used in defence, i.e. **(2) - (1) - 0**

Attacking

A unit may make two attacks in a day, provided it has the time and the supplies.

Normally no more than one attack per turn should be permitted (*except* - see Overrun Attacks below).

Combat is assessed in terms of attacks. In the case of an encounter battle, work out who attacks first, and proceed from there.

It takes one turn to prepare an effective attack.

(NB: It is possible to attack unprepared, but see the -2 factor below)

Orders to prepare for an attack must be made on the order sheet.

Supplies

Units cannot attack without supplies.

Supplies are represented by coloured counters.

They have their own special movement rules (see below).

Supplies are only used up in the attack. Units may use supplies as follows:

ANY ATTACK	1 Supply point per unit
ANY ARTILLERY USE	1 Supply point per unit
DEFENDING	No Supply points
MECHANISED UNITS	1 FUEL Supply point per unit per turn moved or in combat (either defence or attack).

When a unit falls below status 1, it ceases to be effective.

It is not removed from play, but is incapable of withstanding any attack, or even putting up a fight, will retreat if at all possible. If unable to retreat then it is, in effect, captured (players get reports of large numbers of prisoners from the unit).

Combat Assumptions

- Combat is extremely wearing on all troops. Even if they win a battle, the winner's attacking units will take many casualties, often more than the defenders. It is important for commanders to ensure that they do not exhaust their entire force by continually using, say, their entire division to attack.

- Paratroops and some German infantry formations lack substantial numbers of heavy weapons, and are therefore disadvantaged in the attack, or facing tanks in open country.

- Infantry have an advantage over tank formations when defending built-up areas or closely wooded country.

- Preparation is everything. All attacks need at least one game turn of preparation (i.e. waiting, or moving up a short distance) if they are to stand the best chance of success. Obviously, sometimes attacks must be hastily organised and immediate – but be warned, success is less likely in hasty attacks.

- Co-ordination in battle is very hard. Units from the same Brigade / Regiment / Battlegroup are used to working together – but additional units, especially from another command or division make the task of battle co-ordination harder. So in a single fight, two brigades from the same division will be more effective than two brigades form different divisions.

- Tactical air power in the close support role can be decisive in an attack. But it does require several squadrons of effort to do so.

- Artillery is essential to both attack and defence. Attacking without artillery support is a definite disadvantage.

- Combined arms attacks – making good use of infantry, armour and artillery in the same attack – increase the chances of success considerably.

- Tank units are quite potent in battle, but have limits. A well deployed infantry battalion can hold up tanks, especially in close country.

- It takes time to do anything. For the vast majority of units, the following timings apply:

    a. To prepare a brigade/battalion for an attack **takes 1 turn.**

    b. Attach a battalion to a different division **takes 1 turn.**

Players must have allowed for these timings in their orders.

Analysing Combat

1. Get the orders from both sides for the action.

2. Check that you understand all the movements involved before resolving *any* combats. Sometimes a key instruction is included with some seemingly unimportant order at the bottom of the page.

3. Check that the orders relate to the situation – sometimes key things have changed, such as an enemy they were expecting to attack has vacated their positions suddenly. IN cases like this – refer back to the players for an *instant decision*. These should be instant – no discussion is allowed.

4. Work out what constitutes the combat to be adjudicated. This will typically be where a single formation of up to regimental/brigade size is attacked. The forces involved will be the defenders vs all units involved in the attack, in a single combat calculation (see below). If there are defenders in very different situations. This might be something like one battalion of a brigade is in a built up area and the neighbouring battalion is in the open – then you might break down the combat into two separate calculations.

5. When you have decided how to group all the combats – move to the Combat Procedure (below) and work out the results. Don't do combat resolution until you have decided this for *all* combats (because it can get messy otherwise).

Combat Procedure

1. Total the attacker's status points (including supporting artillery / air) and ADD Factors that apply to the attacker to arrive at the Attacker's Score

2. Total the Defender's status points (including supporting artillery / air) and ADD the factors that apply to the defender to arrive at the Defender's Score

3. Subtract the Defender's score from the Attacker's score.

4. Add the score of 1d6

5. Look up the result in the table

FACTORS (apply to both attacker and defender if appropriate)

+1 per unit for each clear tactical advantage[1]
+1 per unit if 'Combined Arms'[2] (prepared)
-1 per unit if light infantry[3] attacking
-2 per unit for unprepared attack
+1 per unit if defending close country[4] against tanks
-1 per unit if unsupported infantry[5] in open against tanks
-1 per mechanised unit with no fuel
-2 per units if moving non-tactically

-1 for each unit from another formation[6]

+4 for ordinary air support
+6 for superior air support
+8 for overwhelming air support
+10 for apocalyptic air support

Notes:
(1) These cannot always be codified - but things like holding a river crossing, overlooking the enemy, or having spent several days preparing defences - that sort of thing would qualify
(2) A combined arms attack or defence is one in which there is a balanced force of infantry and tanks and supported by artillery. Acceptable balances would be, say, no less than 1 tank status point per 3 infantry or 1 infantry to 3 tank. Any amount of artillery counts. This can only be applied to prepared attacks.
(3) Light infantry are British & US paratroops, US glider troops transport and HQ units, ad-hoc units, units fighting out of role (i.e. tanks or artillery units fighting as infantry).
(4) Close country is defined at built up areas or woods.
(5) Unsupported infantry are infantry with no tank or anti-tank units with them and no artillery allocated to their defence.
(6) Units from another formation are units that are not part of the main brigade or division leading in the attack. Particularly common where an ad-hoc defence or hasty attack has been organised.

Supporting Artillery

Unit	Effective Range (km)	Long Range (km)
Field Artillery	8	12
Medium Artillery	12	20
Rocket Artillery	6	n.a.
Infantry Guns	6	n.a.
EFFECT	**Normal Status**	**HALF status**

Artillery Units join the combat as additional unit status in the combat calculation.
Defending artillery specifically allocated to the task can be counted for the defenders and use ammo in the process.
Artillery units can be moved and fired, but obviously their effect is reduced in proportion to how much of the turn they spend moving and what part of the turn they move in.
For example, an artillery regiment moving up during the first half of a turn could not, obviously, support an attack commencing at the beginning of that turn.

Air-Ground Attacks (Close Air Support)
Close air support (CAS) of a ground battle is very difficult to organise successfully.
This can only be done in prepared attacks (i.e. those having spent the previous turn with 'prepare' orders)
Also the effectiveness of the attack is influenced by the presence of specialised air liaison units - in the case of Allied forces called 'Tentacle' or Germans, 'FLIVO'.

German doctrine seems to have been to use their limited air power to hit rear areas and vulnerable targets - so most of the time they will use the interdictions rules (see later).

Air attacks are always by squadrons or the equivalent
The various bomb-loads and tactical doctrines have been averaged out in the interests of simplicity.
All allied air attacks by Typhoons, Mosquitoes, Spitfires and all the rest of the tactical airforces are treated as 'Ground Attack'.
Long range heavy and medium bombers are the only type treated differently.

Type	Squadrons needed to achieve…			
	Normal support (+4)	Superior support (+6)	Overwhelming support (+8)	Apocalyptic support (+10)
German Ground Attack Squadrons	1-2	3-5	6-9	10 or more
Allied Ground Attack Squadrons	1	2 - 3	4 - 7	8 or more
Heavy Bomber Squadrons	-	-	1 - 2	3 or more

Team Control (or Air Control is one is being used) must quickly place an appropriate air attack marker on the master map so that the air attack factor is added into the combat.

Cab Rank. This was a system whereby a number of squadrons would be in the air and on call for 'immediate' CAS missions. This option is only available to the Allies.

A Cab Rank has to be allocated to a specific formation for an entire day (2 turns), and takes 2 squadrons to provide 1 squadron's worth of cover.
Only Europe-based air units can participate in Cab Rank.
The main effect is that by using Cab Rank CAS is made available for unprepared attacks and can be allocated to defence.

Results Table

Score	Standard Results	Special Results
12 +	**Total success.** Attacker takes one step loss per unit Defender takes 2 step loss per unit, and must retire at least 2d6 km in open or half that in woods / close country. Defender loses two supply points per unit, and may not counter-attack next turn.	If attacker mostly armoured **and** has TWICE status of defender **and** has 'BREAK THROUGH' orders, then it is a SUCCESSFUL OVERRUN ATTACK. Move through defeated enemy up to half remaining movement. If this brings the unit into contact with more enemy, then an unprepared attack is permitted in the same turn at player's discretion.
8-11	**Success.** Attacker wins, takes one step loss per unit. Defender takes one step loss per unit and must retire 1d6 km in the open or half that in woods / close country. Defender loses one supply point per unit.	If attacker mostly armoured **and** has TWICE status of defender **and** has 'BREAK THROUGH' orders, then it is a SUCCESSFUL OVERRUN ATTACK. Move through defeated enemy up to half remaining movement and take 1 extra status loss on attackers. If this brings the unit into contact with more enemy, then an unprepared attack is permitted in the same turn at player's discretion.
5-7	**Limited Success**. Attacker wins, and takes one step loss per unit. Defender takes one step loss per unit and must retire 2 km in open or 1 km in woods / close. Defender may counter-attack if so ordered. Defender loses one supply point per unit.	If attacker mostly armoured **and** has TWICE status of defender **and** has 'BREAK THROUGH' orders, then it is a SUCCESSFUL OVERRUN ATTACK. Move through defeated enemy up to one quarter of remaining movement and take 1 extra status loss on attackers. If this move brings the unit into contact with more enemy, halt.
4 to -1	**Confused combat.** Both sides take one step loss per unit, and remain in position. No counter-attacks possible this turn.	
Less than -1	**Attackers badly beaten**. Defender takes no loss. Attackers all take one step loss per unit and are thrown back to start line or at least 1 km whichever is greater. Defender may counter-attack if so ordered.	

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NOTES:

1. Units forced to retire will do so straight back usually or to a specific location to their rear if that is more reasonable - for example into a nearby town or wood, or across a bridge etc. - even if this might mean altering the distance pushed back slightly.

2. Units ordered to stand fast or holding a vital spot (such as the end of a bridge for example) may choose to give up an additional step loss and ignore a retreat result.

3. Units in marked city areas do not retreat on anything less than a 'Total Success' result.

Example of Combat Procedure

Defender
2nd Para Bn is defending the north end of Arnhem Bridge.
It has a current status of 6, and is supported by 5 AL Atk Battery with a status of 2. Total Status 8. The whole force is in a built up area.

The defender's score starts off as 8
The defenders have been in position in the city for a day, which Control deem to be a 'tactical advantage' to the defenders   +2
Bringing the final defender's score to 10

Attacker
This is attacked by an ad-hoc force of Germans made up of:
20 SS PzGR Bn, status 6
9 SS PzJg Abt (fighting as infantry} status 4
9 SS Pz Abt (fighting as infantry) status 4
9 SS PzArtR (fighting as infantry) status 4
Supported by field artillery within effective range - status 6
Total status 24
All the attacking units spend the previous turn with 'prepare' orders.

So the attacker's score starts off with 24
Three of the attacking units are classed as 'light infantry' -3
Making the final attacker's score as 21

Less the defender's score (of 10): 21 – 10 = +11

The Germans roll a 2 on 1d6, bringing the score to +13

This is a Total Success. This would normally force the British out of position, but they had orders to 'hold at all costs', so they can ignore the retreat at a cost of extra status loss.

The defenders take 3 status steps lost on 2nd Para Bn and the Atk Bty. This reduces the Atk Bty to zero effectiveness, and the Para Bn to a status of 3
The attackers take one step loss on each unit involved (except the supporting artillery, obviously) and remain in position.
The attackers used up 5 ammo counters and 1 fuel in the attack, the defenders used up no ammo.

Bombing/Interdiction

When carrying out interdiction attacks or flak suppression either by aircraft or long range artillery, the rules are different.

Take the number of squadrons used and use the following table:

Roll 1d6 per unit in the interdicted area.

Force being used		Result on Die		
Tactical Sqns or Arty Bns per map square	Heavy Squadrons per map square	One Step loss & immobilised	Immobilised	No effect
1-2	-	6	5	1-4
3-4	1	6	4-5	1-3
5-6	2-3	5-6	3-4	1-2
7-8	4-5	5-6	2-4	1
10-12	6-7	4-6	2-3	1
12+	8+	3-6	2	1

Interdiction can be a point on a road, or a bridge or similar choke-points. The effect is therefore on every unit that tries to pass through.

Counter-Battery

Units must be allocated to CB for the entire turn. If any enemy artillery is used within range of the CB forces – roll 1d6 – score 6 for a successful 'fix' on the unit's location. Use the Interdiction table above for results.

+1 to die roll for every turn after the first that the enemy artillery fires form the same location.

10. Hints on Reporting Combat Results

The realistic feel of the game depends on how well Game Control report back to players. This, as mentioned before, must be in the same way a real commander might get information.

This can be in the form of a story of the events of the battle – adding all sorts of colour to make it sound like a real battle account.

Or, if there is a lot of reporting to do, it might be more streamlined with only an outline of events.

It key thing to remember is what the player/commander needs to know. The following information must be imparted.

Use the mnemonic **ELETIS**

EFFECTIVENESS – **L**OCATION – **E**NEMY – **T**YPE – **I**NDENTITY – **S**UPPLY.

1. **E**FFECTIVENESS. An indication of the combat effectiveness of their own forces. ***You may not reveal status scores***. However, remarks *like "the*

unit is very close to disintegration", or *"the unit has had light losses and is fully capable of further offensive action"* are good. Units with a status of less that 3 are regarded as having low offensive power. Units with status of over 5 are regarded as have considerable combat power.

2. **L**OCATION. The location of own forces. It is important that this is correct, because they are basing their next orders on these positions

3. **E**NEMY. They should be told roughly how many battalion equivalents they are fighting. This may be modified – 3 weak status battalions might be mistaken for one full-strength one.

4. **T**YPE. They should be told what *sort* of opposition they face. Tanks, artillery and air power **MUST** be mentioned if they are involved.

5. **I**NDENTITY. If they have been in contact with the same formation (division or regiment/brigade) for more than one turn, they should be given unit identification as well.

6. **S**UPPLY STATE. The players must be told how many supply points they used up in the turn. This might be due to their own and/or enemy action.

11. Supplies

Supplies are represented by coloured counters, indicating:

Red counters	= British Ammo
Green counters	= American Ammo
Blue counters	= German Ammo
Yellow counters	= Fuel

Typically, the Brigade/Regimental HQ units are used as the focal point for unit-held supplied. In reality, individual units, especially mechanised units, held quite a lot of supplies with their integral transport. This would lead to a very cluttered map – so we slightly fudge the representation and place all the supplies for a brigade/regimental group with the HQ unit – this then doubles as a supply focus. The HQ unit has a limit to the number of supply counters is can carry about – marked on the counter.

Units can therefore draw on any supplies from their Bde/Regt HQ 'stack' provided it is within 5km. In normal circumstances Game Control should assume the HQ unit follows the main units during an advance and positions itself appropriately to be able to supply its sub units – even if players forget to issue specific orders for the HQ.

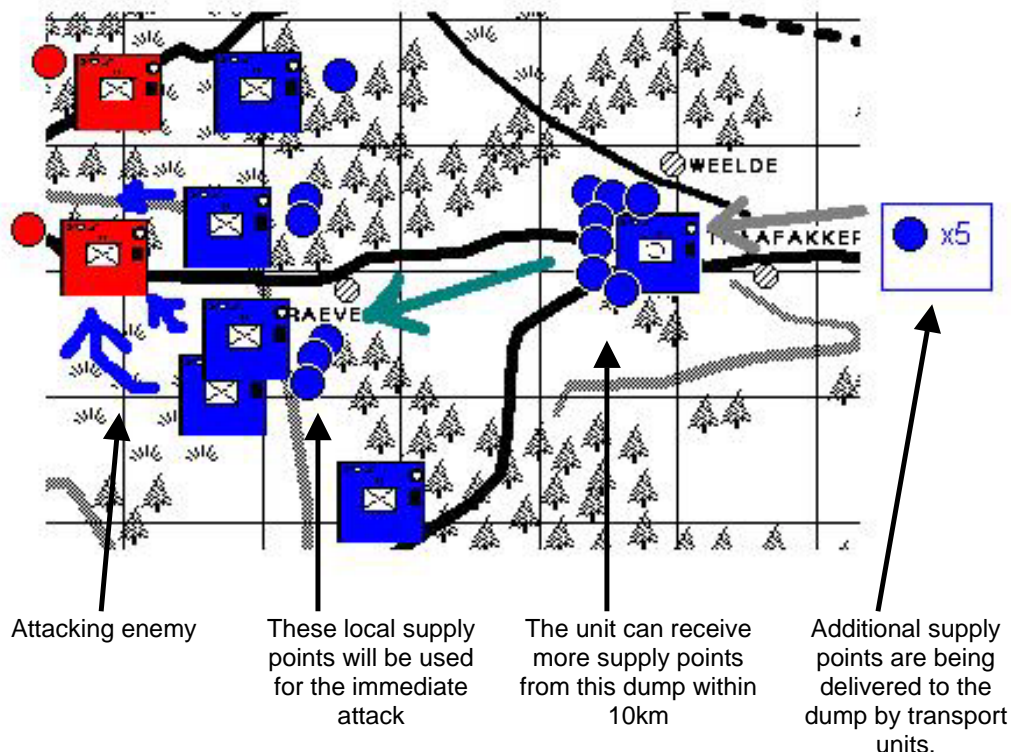Supplies still need to be delivered to the HQ units and this is done in one of three ways:

a. Using the resources of a divisional supply dump to deliver locally. This is usually up to a distance of about 10 km, but it does vary (i.e. it is a bit less

for an airborne division's dump). This facility is also limited in the number of supply counters it can move, and both this and the lift range are marked on the dump counter.

b. Carried in a supply transport unit (which is a separate unit counter in a given formation). This will have its capacity marked on it, in terms of the number of supply points it can carry.

Supply counters can be simply 'parked' at any point on the map – but this is not a dump (because a dump has it's own delivery capacity).

Example of logistics movement

| Attacking enemy | These local supply points will be used for the immediate attack | The unit can receive more supply points from this dump within 10km | Additional supply points are being delivered to the dump by transport units. |

Game note: Keeping an exact track of supplies in combat is notoriously difficult. In the event of uncertainty, it is Control's view of what is available that is the definitive view.

Moving A Supply Dump
Supply dumps cannot be just ordered about like other types of unit. IN order to move a dump the Division allocates a new location for the dump, and the dump counter (without it's attendant supply counters) is moved to the new location - up to the maximum move for lorries – taking a turn, but leaving it's supplies behind. Supplies are then moved to the new dump using whatever transport units are available in the normal way.

12. Air Operations

The main missions are: Air Transport, Close Air Support (CAS), Bombing, Recce and Escort.
The map is divide up into air zones - each around 30km across. Most air deployment is by Air Zone.

a. Air Transport: delivering supplies or troops either by landing, parachute or glider. Air transport deliveries are not by air zone, but to specific locations on the map.

Air Resupply
Use the following ready reckoner Roll 1d6 plus factors
Factors
Poor terrain   -1
If the zone is contested at the time of the drop,   -3
If the supplies are landed on an airstrip   +2
If the supplies are landed on an airstrip with AFDAG deployed +5
Enemy fighters intervene   -3
Enemy flak intervenes   -2

No of points	6+	5	4	3	2	1	0	-1	-2	-3	-4
10	10	9	8	7	6	5	4	3	2	1	0
9	9	8	7	6	6	5	4	3	2	1	0
8	8	7	6	6	5	4	3	2	2	1	0
7	7	6	6	5	4	4	3	2	1	1	0
6	6	5	5	4	4	3	2	2	1	1	0
5	5	5	4	4	3	3	2	2	1	1	0
4	4	4	3	3	2	2	2	1	1	0	0
3	3	3	2	2	2	2	1	1	1	0	0
2	2	2	2	1	1	1	1	1	0	0	0
1	1	1	1	1	1	1	0	0	0	0	0

The lift for supplies will vary according to the plan and air interference etc. The resulting of supply counters will be placed on the appropriate dropzones by the Air Control Team.

Parachute and Glider Drops
The main casualties to units being delivered by parachute or glider are as a result of dispersion or non-arrival of key aircraft.
In daylight drops most units arrived pretty well intact. Night drops were a good deal less predictable.
Drops must be made into open areas or marsh or polder not less than 1km across.
Drops may not be made into woods or built up areas. Or on lakes, before you ask.

Day Drops
For each unit delivered by air, roll 1d6. Score 1 for a status loss.
Roll again for those suffering a loss - score 1 again for it to be permanent,
otherwise the lost status is recovered the after 1 clear turn (i.e the next day).

If unengaged enemy fighters in the same air zone as the dropzone
                                                    -2 on the first die roll.
If under fire from Flak   -2 on both die rolls
If enemy on the drop zone   -2 on both die rolls

Night Drops
For each unit delivered by air, roll 1d6. Score 1 or 2 for a status loss.
Roll again for those suffering a loss - score 1 or 2 again for it to be permanent,
otherwise the lost status is recovered the after 1d6 turns.

If under fire from Flak   -1 on both die rolls
If enemy on the drop zone   -1 on both die rolls

Gliders
Units delivered by glider have risks <u>in addition</u> to those above.
Glider units landing on poor terrain (e.g.marsh / polder) roll 1d6, score 1 for a
permanent status loss.

Movement after landing
It takes only a short time for airborne forces to be mobile after landing.
However, the timing of landing is critical:
Morning daylight drop   - no movement in same turn as drop.
Afternoon daylight drop   - allow ½ full movement
Morning night drop   - allow ½ full movement
Afternoon night drop   - no movement allowed

b. Close Air Support: Acting as artillery support to a given ground
operation. This must be pre-ordered as part of the units orders - and must
appear in BOTH ground AND air orders to be effective. Only available to
Allied forces. See Combat section for how this works.

c. Bombing: Bombing a given location or unit on the map behind enemy
lines. This includes flak suppression actions. The bomb line is normally at
least 2 km from the nearest friendly troops. See 'Bombing / Interdiction'

d. Recce: Reconnaissance of an air zone per squadron/move.
Units in cover have a vanishing small chance of being spotted, so we ignore it
here (unless there is an exceptionally high concentration)

Armoured and mechanised units in built up areas cannot claim cover.

+1 if more than 3 units in same grid square.

Results table 1d6

Die roll	Vehicles in Moving open	Vehicles stationary in open	Infantry / Guns / Supplies stationary in open	Infantry Moving in open
6	Direction, type and size of unit reported	Type and size reported	Type reported	Direction, type and size of unit reported
5	Direction and type reported	Type reported	'Enemy Spotted'	Direction and type reported
4	Direction reported	'Enemy Spotted'	No report	'Enemy spotted'
3	Direction reported	No report	No report	'Enemy spotted'
2	'Enemy spotted'	No report	No report	No report
1	No report	No report	No report	No report

Explanation:

Type = distinguish between trucks, tanks, assault guns, artillery, half tracks, infantry etc.

Direction = the main direction of movement , eg "towards Arnhem"

Size = "Battalion sized unit" or 'Several battalions", "small force" etc

'Enemy Spotted' = a vague report that some sign of enemy activity has been seen in a given location, but no details.

e. Escort: Close air cover to protect bombers or transport aircraft. See 'Air Conbat'

f. Air Cover: Combat air patrols to dissuade enemy air operations. See 'Air Combat'

Losses from Flak

If a flak unit is the victim of a flak suppression mission – and it takes damage or is immobilised (see 'Interdiction' above) then it is also suppressed for that turn.

Flak can be very damaging to nearby transport operations or on Bomber or Transport overflights.

Target:	Overflight (not fighters)			Air landing /or paradrop within 2km			Air landing /or paradrop within 4km		
1d6 per target air serial	Loss	Dam	NE	Loss	Dam	NE	Loss	Dam	NE
Heavy Flak	6	5	1-4	5-6	3-4	1-2	6	5	1-4
Light Flak	-	6	1-5	5-6	4	1-3	-	6	1-5

Loss = transported/landed unit loses one status AND air unit takes one damage (2 damage = one lost serial/squadron (aggregate over whole operation for the turn)

Dam = air unit takes one damage.

NE = no effect

This is addition to the dispersal effects in the paratroop rules above.

13. Air to Air Combat

Fighter vs Fighter

1. Establish Air Cover patrol areas. If these are mutual you have a combat.

2. Establish fly-in routes for air transport or bombers. If this coincides with enemy air cover you have a combat.

3. Fighter Vs Fighter:
Take the numbers of fighter squadrons on each side and roll 1d6. The side with the largest number of squadrons is always the attacker (and therefore rolls).

ODDS: Score	1-1	2-1	3-1	4-1	5-1	6-1(+)
1	Lose	Lose	Draw	Draw	Draw	Win
2	Draw	Draw	Draw	Draw	Win	Win
3	Draw	Draw	Draw	Win	Win	Win
4	Draw	Draw	Win	Win	Win	Win
5	Draw	Win	Win	Win	Win	Win
6	Win	Win	Win	Win	Win	Win

WIN = Attacker loses 10% of defender's strength
Defender loses 20% of attacker's strength

DRAW = Each side loses 10% of their opponent's strength.

LOSE = Attacker loses 20% of defender's strength
Defender loses 10% of attacker's strength

Losses are in complete squadrons, rounded to the nearest squadron. Given the forces involved, few squadrons will be lost - but umpires should report 'Light Losses' or 'Heavy Losses' as appropriate.

4. Fighter Vs Transport Aircraft.
If the fighters win against the air cover, they inflict losses on the transports. Losses are 1 transport serial out of action per squadron that breaks through to the stream.
For attacks on bombers, quarter these losses.

Typical Unit Status Profiles

These profiles assume that the unit concerned is at full strength. Note that German units were rarely in such a good condition, and one or two step reductions at the start would be usual in 1944-5.

Unit Description	Profile	Size	Logs Lift Capacity
British			
Div HQ unit	2 - 2 - 1 - 0	1	3
Bde HQ unit	2 - 2 - 1 - 0	1	6
Armd/Mech Bde HQ	2 - 2 - 1 - 0	2	12
Rifle Battalion	7 - 6 - 5 - 4 - 3 - 2 - 1 - 0	1	0
Para Battalion	6 - 6 - 5 - 4 - 3 - 3 - 0	1	0
Airlanding Battalion	8 - 6 - 5 - 4 - 3 - 2 - 1 - 0	1	0
Armoured Regiment	8 - 7 - 6 - 4 - 3 - 2 - 0	2	0
Field Artillery Regiment	8 - 4 - 1 - 0	2	4
Medium Artillery Regiment	10 – 3 – 0	2	4
Anti-Tank Regiment	[6 – 3 – 0]	2	4
AL Anti-Tank Battery	[2 – 1 – 0]	1	0
Recce Regiment (Armoured Cars)	4 – 3 – 2 – 1 – 0	2	0
RASC Company	(1) –(1) – 0	4	10
USA			
Div HQ unit	2 - 2 - 1 – 0	1	3
Regt HQ unit	2 - 2 - 1 – 0	1	6
Armd/Mech Bde HQ	2 - 2 - 1 – 0	2	12
Infantry Battalion	7 - 6 - 5 - 4 - 3 - 2 - 1 - 0	1	0
Armored Battalion	8 - 7 - 6 - 4 - 3 - 2 - 0	2	0
Para Battalion	6 - 6 - 5 – 4 - 3 - 3 - 0	1	0
Glider Battalion	6 - 6 - 5 – 4 - 3 - 3 - 0	1	0
Artillery Battalion	8 - 4 - 1 – 0	2	4
German			
Div HQ unit	2 - 1 - 1 – 0	1	9
Regt HQ unit	2 - 1 - 1 – 0	1	6
Fallschirmjager Bn	6 - 6 - 5 – 4 - 3 - 3 - 0	1	0
Grenadier Battalion	7 - 6 - 5 - 4 - 3 - 2 - 1 - 0	1	0
Weak Gren Bn	5 – 5 – 4 – 3 – 1 – 0	1	0
Panzer Grenadier Battalion	9 – 8 – 7 – 6 – 5 – 4 – 2 – 0	2	0
Weak PzGren Bn	6 – 6 – 4 – 1 – 0	1	0
Panzer Battalion	9 – 7 – 6 – 2 – 0	2	0
Weak Pz Bn	5 – 3 – 2 – 0	1	0

Unit Description	Profile	Size	Logs Lift Capacity
Heavy Panzer Bn	10 – 8 – 5 – 3 - 0	2	0
JgPz Battalion	8 - 6 – 5 - 2 – 0	2	0
Weak JgPz Bn	4 – 2 - 0	1	0
Field Arty Bn	8 - 4 - 1 – 0	2	0
Heavy Pz Battalion	10 - 8 - 5 - 3 – 0	2	0
Infantry Gun Bn	6 – 3 – 0	1	4
Rocket Arty Bn	8 – 2 – 0	1	4
Pz Recce	6 – 4 – 2 – 1 – 0	2	2
Weak Pz Recce	4 – 2 – 1 – 0	1	2
Heavy Flak	3 - 2 - 2 – 0	1	2
Light Flak	2 - 1 - 1 – 0	1	2
Festungs Bn	(2) – (2) – (1) - 0	1	0
Fahrkolonne	0 – 0	1	3
Schweres Kraftwagen Kolonne	(1) - 0	2	6
General			
Supply Unit	(1) –(1) – 0	4	10
Divisional Dump	(1) – (0)	0	10
Engineer Battalion	5 – 4 – 3 – 3 - 0	1	2

Typical Unit Type Symbols

unit type	description
2	Anti Tank
T	Transport / Logs
K	Mountain Inf
V	Airborne Arty
N	Paras
3	AA Arty
8	Engineers
!	Infantry
"	Armour
£	Mechanised
^	Cavalry
&	Recce
)	Artillery
+	SP Artillery
9	Armoured Engineers
X	Airborne Engineers
g	Glider Infantry
#	Mountain Arty
U	HQ
©	Blank

Ó   Bridging Column