Desert Rats

Design and Historical Research: Jim Hind
Playtesting: Keith Poulter and Chris Hunt
Graphics: David Green

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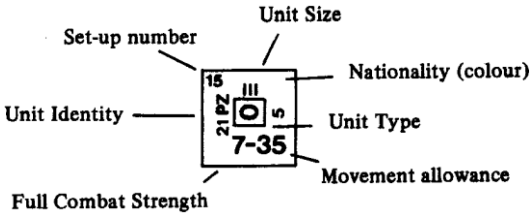
So, I attacked Hellfire pass with 11th Indian while 7th Support Group went swanning off to Bir Hacheim. Then on the next round of combat....

Introduction

"Desert Rats" is a simulation, for two players, of the famous campaign fought in the Western Desert between December 1940 and December 1942, between the British (and British Empire's) Eighth Army and a German/Italian Army commanded during much of the campaign by General Rommel. Players take it in turns to move their pieces around the mapboard showing that portion of Egypt and Libya where the campaign was fought, engage enemy units in combat, and pursue a variety of specified objectives. Before commencing play, the players agree between themselves to start the game at one of a number of given 'start dates', and play up to one of a number of given 'stop dates', thereby giving a game anything from three to twenty-five game turns in length. The chosen Start Date will affect the initial placement of units on the board, while the Stop Date determines the objectives set to each player if he is to claim victory.

Game Scales. One complete game turn represents the passage of one month. Map scale is approximately one hexagon (hex) to 8 miles. The units represent anything from battalions to full divisions.

Sample Piece.



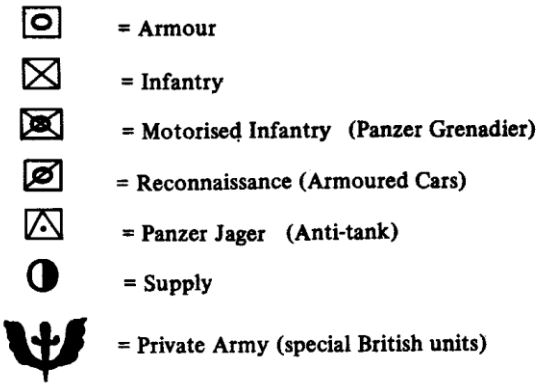
A brief description of these terms follows for those who may be unfamiliar with games of this type. More experienced players can probably omit this section, and proceed straight to Rule 2.

Movement. Quantifies the ability of the piece to move about the board. See Rules 2 and 3.

Combat Strength. Quantifies the unit's fighting ability when at full effectiveness. Units will often have their combat strength impaired by losses; this is signified by placing a numbered marker under the counter. If such a marker is present, it supercedes the printed combat strength. If no marker is present, the unit is deemed to be at full strength. See Rule 6 for more detail.

Unit Size. Affects the ability to stack more than one unit per hex (Rule 5). xx = Division, x = Brigade, III = Regiment, II = Battalion.

Unit Type.



Nationality. Represented by the colour of the counter.

British and Empire	Khaki
Italian	Grey/Blue
German	Brown

The nationality of a unit affects its ability to receive supply (Rule 8). The Allied player moves all British and Empire units; the Axis player moves all German and Italian units. No player may at any time move any enemy unit.

Identity. Adds historical colour to the game, by specifying the historical unit which the game piece is supposed to represent. That illustrated is Panzer Regiment S of 21 Panzer Division, part of Rommel's elite Afrika Korps.

Set-up number. Serves to assist the setting up of the game by enabling the unit to be found quickly on the Order of Battle charts provided for each player. It has no other function or significance.

2. Game Turn Sequence

Each game-turn consists of an Allied player-turn and an Axis player-turn, in that order. (Some start-dates cause the game to begin with the Axis portion of a game-turn). Each player-turn consists of two phases, an *Operations Phase* and a *Logistics Phase.* Further detail follows:

a. Operations Phase

In many war games, movement and combat occur in separate phases of a player's turn. In "Desert Rats" the two are combined into a single Operations Phase, during which the player may alternate segments of movement with rounds of combat in more or less any number and order he chooses.

A player will usually begin this phase by electing to move some or all of his combat units (see Movement, Rule 3). When any unit moves adjacent to an enemy unit it must stop and may move no further *for the present* (see Zones of Control, Rule 4). As a player moves each of his units, he makes a mental note of the number of movement points it has expended, and proceeds to move other units of his choice. At any point he may interrupt this sequence by declaring a *round of combat.* At the moment he does this, all his units are deemed to have expended the same number of movement points as the one which has so far expended most. Combat is then resolved according to the provisions of Rule 6, with due reference to Rule 8 (Supply).

After the round of combat is completed the player may, if he wishes, declare another one immediately, or he may elect to resume movement. He may continue in this way alternating movement with rounds of combat in any order he pleases until all his units have expended all their movement points, all possible rounds of combat have been concluded, or the player decides that he has finished with military operations for that turn. He then proceeds to the logistics phase.

b. Logistics Phase

Examine the Time Record Track printed on the map. In each compartment there appear two numbers, thus: y/z.

An entry 'R' or 'W' on the Time Record Track, indicates that units are to appear as reinforcements, or else be withdrawn from the map, during the logistics phase of that turn. Consult Rule 9 and the Order of Battle charts for further details. Number y specifies replacements - replacement points may be used to build up the strength of units which have suffered losses in combat, or to purchase fortified "box" markers.

Number z specifies the number of supply units which the player is permitted to have on the board. If he has less than the specified number, he is allowed to bring on new supply units to make up the difference. However, should a player already have more supply units on board than the specified number, he is under no compulsion to remove any. Note also that captured supply units are not counted; subject to the counter mix provided, a player can have as many captured supply units on board as he is able to lay his hands on, over and above the specifications of "number z".

Further detail concerning the placement of reinforcements, replacements, and supply, is given in Rules 9 and 10.

After new supply units (if any) have been placed on the board, the player must check that all his units are in General supply. Any which are not lose two combat strength points to supply attrition.

At this point in his turn the Allied player resolves any attacks by his Private Army counter against Axis supply units. See Rule 11.

The player's turn is now complete. The Game turn marker is advanced one space on the Time Record Track, and the turn to play passes to the other player. The players continue in this way until they arrive at their chosen Stop Date, at which point they consult the Victory Conditions to determine the winner of the game.

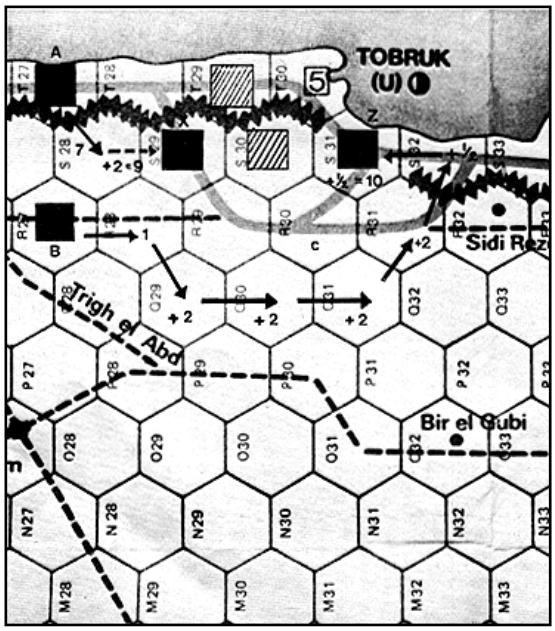
3. Movement

During each round of movement during his Operations Phase, a player is entitled to move as many or as few of his units as he chooses. The movement allowance of each unit specifies the maximum number of movement points that the unit may expend during the entire Operations Phase. Differing types of terrain cost differing numbers of MP's to enter; details may be found on the Terrain Effects Chart. Notice that each clear terrain hex costs 2 mp's, with other types of terrain costing proportionately more or less.

Strategic Movement. If, at any point in its move, a unit is entering a hex which is more than five hexes distant from any enemy unit, then the movement point cost to enter the hex is, for many types of terrain, halved. This is Strategic Movement. Details are shown on the Terrain Effects chart. Note that the costs of entering a sand hex or crossing an escarpment are not halved during strategic movement. Ordinary and Strategic movement can be alternated during a player's turn as often as he desires, depending entirely on the proximity or otherwise of enemy units to the path that the friendly unit is to trace.

In certain circumstances, units which have been victorious in a round of combat are permitted to advance after combat. This advance is regarded as part of the game's combat system, and is not subject to

any of the clauses governing movement; in particular, advance after combat does not cause the expenditure of movement points.



Example. The unit at A moves to X at a cost of 9 movement points (7 + 2); the unit at B moves to Z at a cost of 10 movement points (1 + 2 + 2 + 2 + 2 + 1/2 + 1/2). Note that this unit could not have got to Z via hex "c" as this would have meant stopping on entering an enemy ZOC. [Move A should be 10MP]

When a player elects to call a Round of Combat, all his combat units on the board at that time are deemed to have expended the same number of movement points, to wit the same number as the unit which has expended the most MP's so far this turn. A counter may be placed in the appropriate place on the "Movement Points Expended" track, as a mnemonic aid while the round of combat is being resolved. When combat is concluded, including any advances, movement may be resumed from the point reached so far.

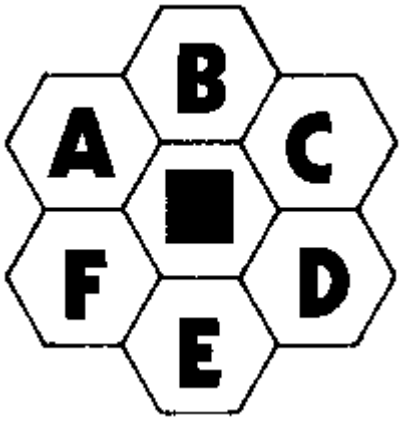
Calling a round of combat does not of itself cause the expenditure of any movement points.

It is possible for a unit to engage in a round of combat after all its movement points are expended. This might happen, for example, if a unit whose movement allowance was 25 were fighting in the same round of combat as a faster unit which had just expended, say, its 28th movement point getting into position for the combat. The slower unit would be permitted to take part in the combat, and to advance after combat, but it could not move any further after the round of combat was concluded.

The sequence of movement for supply units is different from that outlined above, and is explained in Rule 8. Rule 3 applies to the movement of combat units.

4. Zones of Control

The six hexes adjacent to a combat unit comprise its Zone of Control (ZOC). Supply units do not have Zones of Control. Zones of Control do not extend into impassable terrain, through impassable hexsides, into or out of fortifications.



Zone of Control. The 6 hexes (A -F above) surrounding a unit constitute its Zone of Control (ZOC).

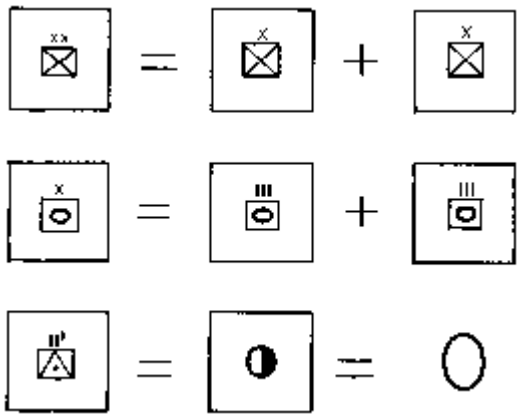
Any unit which enters the ZOC of an enemy unit during movement, must stop immediately and may move no further that turn unless the ZOC is removed by the elimination or retreat of all the enemy units exerting it.

Zones of Control also exert important effects on combat, advance after combat, and supply. These effects are explained more fully in the appropriate rules.

A unit which begins its turn in an enemy ZOC, is permitted to leave it; but in this case the first hex entered must be completely free of Zones of Control exerted by *any* enemy unit. There is also an additional cost of 3 movement points to disengage in this way. Once a unit has disengaged it may continue to move normally. Notice that this permission to disengage applies only at the very beginning of a player's turn, and does not apply, for example, after a round of combat.

5. Stacking

For the purposes of the game, two regiments (III) are regarded as equivalent to one brigade (X); two brigades are equivalent to a division (XX). The maximum stacking allowed is one division per hex. Battalions (II), supply units, markers, etc. do not count against stacking limitations, and may be freely added to the division-sized stack.



Stacking. For stacking purposes one division equals two Brigades, one Brigade equals two regiments, battalion and supply counters stack freely.

A division which, due to combat losses, is currently at *less than half* its maximum combat strength, counts as a brigade for stacking purposes. Similarly, a brigade at less than half strength would stack as a regiment.

Stacking limitations apply during the logistics phase (new units entering the map must comply with stacking limitations in their initial placement), and at the end of each round of movement. Units may move through other friendly units without let or hindrance, but may not end a turn, or enter [balance of sentence omitted in original rules]

6. Combat

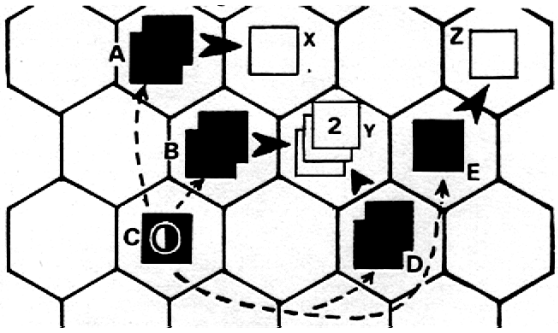
It is quite possible to move adjacent to an enemy unit without causing combat. For combat to happen, a player must first move at least some units adjacent to the enemy, and then declare a *round of combat.* Once a round of combat has been declared, however, the following rules apply.

All enemy units which have friendly units in their zones of control, must be attacked. All friendly units which have enemy units in their zones of control, must attack. No unit may attack, or be attacked, more than once in a given round of combat.

In no case may a unit attack an enemy unit to which it is not adjacent.

All attacking units must be in *combat supply* (see Rule 8). Before any combat is resolved, the attacking player is permitted to move his supply units, subject to the clauses of Rule 8, in such a way as to place all his units in combat supply. Should this be found to be impossible any unit which is out of combat supply is immediately deemed to have suffered a combat result of 4 (see Combat Result Table). *At least* 2 of this '4' must be taken in the form of a loss in combat strength of the offending unit. These losses are imposed before any combat is resolved in the current round. This loss is deemed to be the contribution of these units to that round of combat.

Subject to the above clauses, the choice of which friendly units attack which enemy units, and the order in which the various combats are resolved, is entirely the choice of the player whose Operations Phase is in progress. He is regarded as the attacker, and his opponent as the defender, regardless of the overall strategic situation.



Combat. A round of combat has been declared, and all adjacent hostile units must now engage in combat. The unit on E must attack that on Z; the units on D must attack those on Y; those on A must attack that on X; those on B can either attack positions X or Y, or one unit could take part in the attack on each. The supply unit on C is providing combat supply to the attacking units as indicated by the dotted lines.

All defending units in a single stack have their current combat strengths totaled into a single defense strength, which may be attacked only once per round of combat, by whatever attacking units their owner decides. An attacking unit, or stack of units, may attack defenders on more than one hex if desired; the only restriction is that all the attacking units must be adjacent to all the defending units.

No attacking unit may ever split its combat strength, or share its combat strength between two or more separate attacks. But different units may combine their strengths in any combination their owner pleases.

When the attacker has finally specified which units are attacking what, the defender's strength is *subtracted* from the attacker's to produce a *combat differential.* This differential is adjusted by any relevant situation modifiers, and the die is rolled and the Combat Results Table consulted. Each side extracts its losses and makes any retreats and or advances and the attacker proceeds to the next combat. All combat situations in this round of combat must be resolved before proceeding to another, and before resuming movement.

Situation modifiers to the combat differential, and the significance of the entries in the combat results table, are explained more fully in the footnotes to the CRT.

Losses in strength as a result of combat are signified by placing a numbered marker under the unit. For example, a unit with printed combat strength of '6' which lost 2 strength points in combat, would have a '4' marker placed under it. If the same unit suffered another loss of '1' in a subsequent round of combat, the '4' marker would be replaced by a '3'. Units whose strength is reduced to zero are destroyed, and removed from the map.

If a unit has no strength marker under it, it is presumed to be at full strength. Otherwise, the presence of a numbered marker under the unit supercedes the printed combat strength.

If an armoured or recce unit suffers strength losses, a wreck marker is immediately placed in the relevant hex with a numbered marker under it signi-

fying the number of strength points lost. These strength points are then available for possible repair at a later stage (see Rule 10).

Retreats

Each side has the option of taking losses from the CRT in the form of retreats. The following restrictions apply.

a. The defender retreats before the attacker. Each player retreats his own units.

b. No unit is permitted to retreat into an enemy zone of control, even if the hex is occupied by friendly units. Take strength losses instead. (But see Optional Rule 17.)

c. The retreat must be through unoccupied hexes if possible, and the unit must end its retreat the indicated number of hexes away from the hex in which it underwent combat. Retreat does not consume movement points, and terrain costs are ignored, save that impassable terrain may not be entered.

d. If a retreat of the specified number of hexes is not possible (due to stacking restrictions, for example), a unit may retreat further than called for by the CRT. If retreat is still not possible (because the unit is pinned against the edge of the board, perhaps) then the option to retreat is not open, and the units must stay in place and suffer strength losses instead.

e. If the attacker chooses to take any portion of his losses in the form of retreats, then the units which took part in that particular attack may not move again or take part in any more rounds of combat for the rest of the current player-turn.

Advance After Combat

If a hex is completely vacated during combat, as a result of the retreat or elimination of the units which occupied it, then the victorious units which took part in combat against the hex in question, have the option to advance after combat.

a. This option to advance must be exercised immediately, before any other combat is resolved.

b. A retreating unit will leave behind it a path of hexes called the retreat path. Units which choose to advance along the retreat path may ignore enemy zones of control.

c. An advancing unit may choose to advance in any direction it likes, independently of the retreat path. However, if a unit is not advancing along the retreat path, it must stop in the first enemy-controlled hex it enters.

d. The maximum number of hexes that may be advanced, is the number specified in the CRT result that led to the advance.

Examples

A defending stack suffers a '0/4' result on the CRT, and elects to retreat 4 hexes. Then all the attacking units which took part in that combat have the option to advance up to 4 hexes in any direction of their choice. But they ignore enemy zones of control only if they follow the retreating units along the retreat path.

If the same defending stack had chosen to split in its retreat, then several different retreat paths would be open for the attackers to follow.

Should the attackers come up against hexes of the retreat path which are actually occupied by other enemy units, then they must stop. But note clause (c) of the rules governing retreats.

If the defending stack had chosen to take 2 points of strength loss followed by 2 hexes of retreat, then the attacking units would only have the opportunity to advance 2 hexes. But if the defending stack had been entirely eliminated by the '0/4' result, then the attackers would have the option to advance the full 4 hexes. In this case there would be no retreat path for them to follow, and they would be affected by enemy ZOC during their advance.

Retreats and advances do not cause the expenditure of movement points.

Should an advancing unit find itself adjacent to enemy units which were not hitherto involved in the current round of combat, it is not permitted to fight them. Combat occurs only between opposing units which were adjacent at the start of the round, i.e. at the instant when the round of combat was declared.

7. Fortifications and Fortified Boxes

Two *fortifications* are printed on the map, to wit Tobruk and Bardia. Each of these has an intrinsic combat modifier, printed in the hex, which is added to the combat strength of infantry and/or motorised infantry units *defending* in the hex.

Zones of control do not extend either into or out of fortifications. Thus it is perfectly possible for opposing units to occupy adjacent hexes during a round of combat without themselves engaging in combat, providing one stack is occupying a fortification. Combat involving a fortification hex occurs entirely at the attacking player's discretion, whether attacking in or out. If he states his intention to involve the garrison of the fortification in a round of combat, all the usual restrictions apply.

In an attack against Tobruk, any attack at +8 or greater is resolved on the '+8' column of the CRT Attacks on Bardia, similarly, may not be made at greater than +10. Furthermore, any combat result which implies a loss to the attacker, means that no further attacks may be made on that fortification for the remainder of the current player's turn. The garrison have repelled the assault.

In addition to fortifications, each player has the option of constructing *fortified boxes* during his logistics phase (Rule 9). A fortified box marker may be purchased at a cost of one replacement point and placed on a friendly-occupied hex which is not in the ZOC of any enemy unit. Only one fortified box may be placed in any hex, and this may not be a fortification or town hex (Benghazi, Alexandria, Cairo). The fortified box then gives a defensive combat modifier

of 2 to infantry and motorised infantry units defending in the hex.

In order to receive the defensive benefits (combat modifier) of fortifications and fortified boxes, a defending stack must consist entirely of infantry and/or motorised infantry. A stack consisting even in part of armour or recce units would not receive the modifier. (Committing mobile armoured units to static defensive positions is historically "wrong tactics"; this rule seeks to enforce the point.)

Zones of control do not extend *into* fortified boxes, but they do extend out. Thus a stack occupying a fortified box would not be compelled to attack in. The fortified box may not be destroyed in order to satisfy combat losses, but is removed if and when the units occupying it are either destroyed or retreat out of the hex. It is also removed at the end of any turn in which it is not occupied by friendly units.

Note that armoured and recce units attacking either fortifications or fortified boxes suffer an unfavourable combat modifier. See the footnotes to the CRT.

Ah yes, but you gave me 2 Victory Points when you transferred the Aussies Out of Tobruk.

8. Supply

A unit may be in *general supply, combat supply,* or *unsupplied,* depending on its distance in hexes from the nearest friendly supply unit.

General supply radius is 10 hexes for Italian units, 15 hexes for Allied units, 20 hexes for German units. Combat supply radius is 3 for Italians, 4 for Allies, 5 for German.

General supply considerations are important at the beginning of a player's Operations phase, and at the end of the Logistics phase. At the end of the logistics phase, after a player has brought onto the map any new supply units to which he may be entitled, any units which are not in general supply suffer a loss of 2 strength points.

Units which are unsupplied at the beginning of the Operations Phase of a player's turn, are subject to important restrictions on movement during that turn. They may not enter enemy-controlled hexes at any point during [some text apparently missing here] of that player-turn. Their owner may, at his discretion, move unsupplied units to a friendly port hex (see Rule 9) in anticipation of bringing on a supply unit at that port during the next logistics phase. If the port hex is occupied up to stacking limits, then unsupplied units must instead move their full movement allowance in the direction of the player's home base (Alexandria or Cairo for the Allies, Tripolitania for the Axis).

The fact that an initially unsupplied unit may come within supply during the course of the turn, does not cause it to halt its retreat; it keeps going. If it actually reached its home base area, it stays there for the rest of that player-turn. Note that "Alexandria" base area consists of hex SS32 and all adjacent hexes.

The direction chosen for the retreat is also severely limited. Should the unit at any point in its retreat find itself on the coast road, then it may follow it. Otherwise *each hex* entered during the retreat must be closer to home than the hex being left. Distance from home here is judged according to routes which do not pass through enemy ZOC.

...and if that fails you nudge the board.

Within these restrictions, the choice of retreat route is made by the owning player.

Should an unsupplied unit be completely surrounded by enemy ZOC, so that no retreat path is available, then it is permitted to move, if possible, just far enough to take it out of enemy ZOC, and may then move no further that turn unless a retreat path should subsequently become available to it.

If the hapless unit should be surrounded by enemy ZOC, so that it is unable to pull out, then it would of course suffer a combat result of '4', as described in rule 6, as soon as its owner declared a round of combat.

Example. The Allied player begins his turn with units in the vicinity of Tobruk out of general supply. The units cannot get into Tobruk, because Axis zones of control intervene. Then two brigades (maximum permitted by stacking rules) could make for Bardia, assuming it to be still under Allied control. Any other

unsupplied units would have to make for Alexandria, and must comply with the above restrictions during their retreat.

Units which begin their turn out of supply may not use strategic movement rates. If other units, which began the turn in supply, are engaging in the usual series of rounds of movement/rounds of combat, then the retreating units would also have to have expended 18 MP's at that combat in the normal way. To continue the above example, if supplied Allied units were moving to attack while their comrades were retreating, and a round of combat were declared after, say, 10 movement points had been expended, then the retreating units would have to have completed 10 movement points of their retreat before the combat was resolved. If a second round of combat were initiated after 18 MP's had been expended, then the retreating units would also have to have expended 19 [I believe that this should be "18"] MP's at that time, and so on. In other words, there is no compulsion to retreat units their full move in one movement segment; their move is instead dovetailed with the rounds of combat (of other units) in the normal way.

Combat supply considerations apply during each round of combat. All attacking units must be in combat supply at the instant of combat; any units which are found not be, suffer an immediate CRT result of '4' retreat of 2 hexes before combat is resolved. See Rule 6.

If a defending stack is within combat supply radius of a friendly supply unit, then that supply unit *must* be used to give combat supply to that stack. If there is no friendly supply unit within range, there is a combat strength modifier in favour of the attacking units. The defender may only expend the *minimum* number of supply units necessary to put his units in combat supply.

Supply units may give combat supply to any number of friendly units within range, over any number of rounds of combat. A supply unit which is being used in this way, is flipped face downward, and is removed from the map at the end of the game turn in which it was so used.

Supply paths (both for combat supply and for general supply) are traced *from* the combat unit *to* the supply unit. A supply path may not pass through impassable terrain, nor through enemy occupied hexes. The supply path may be traced through enemy zones of control, *provided* these are occupied by friendly units. Otherwise a supply path may not enter an enemy ZOC.

Movement of supply units follows a different sequence from that of combat units. During the Operations Phase, no supply unit is moved until a round of combat has been declared. Then supply units are brought forward in order to place all attacking units in combat supply, and duly flipped face down. If several supply units are available within movement range, the nearest one must be used first. The number of MP's expended by the supply unit does not affect, and is not affected by, the MP's expended by other combat or supply units. Thus a supply unit could move its full movement allowance irrespective of the MP's expended by combat units up to that point in the turn, and without affecting the ability of other supply units to move *their* full allowance at a later point in the turn. Supply units may not use the strategic movement rates.

Supply units which are not being used to give combat supply, are moved at the very end of the Operations phase, after all combat units have completed their movement.

It is possible to capture enemy supply units by moving into the same hex. Remove the captured unit, and replace it by a 'captured' supply unit in your own colours. A face-up supply unit is automatically captured by any combat unit moving onto the same hex; a face-down supply unit is successfully captured on a die-roll of 1-4. (A 5 or 6 indicates that the supply unit was completely expended before the attacking units got to it.)

Supply units may not retreat as a result of combat; if one were stacked with combat units which elected to retreat or were eliminated, then the supply unit would stay where it was, giving the opposing units the chance to capture it during advance after combat.
At any point during his turn, a player may elect to destroy any of his supply units. Simply remove the unit in question from the map. The Allied private army counter (Rule 11) also has the ability to destroy enemy supply units.

During the logistics phase players are entitled to bring new supply units onto the board. See Rule 9 for details.

Example of the uses of supply units. In December 1940 the Italians start the game with two supply units and a combat unit on Sidi Barrani. If the Allied player elected to attack that hex, one of the supply units would be used by the Axis player to create combat supply for his defending unit. The other would remain face-up. If the combat unit were eliminated or retreated, the Allied player would be able to advance into Sidi Barrani, automatically capturing the face-up supply unit and dicing for the other. These would then be replaced by Allied "captured supply" units, and these would be available to the Allied player to give combat supply during other rounds of combat later that turn (or to save until later, as he chose). If it took several rounds of combat to drive the Italian combat unit away, the Italian player would *not* be permitted to use one supply unit during the first round, and then expend the second during subsequent rounds with a view to denying it to the Allied player. The one unit would be both necessary and sufficient to create combat supply for the defending combat unit, and the other would therefore remain face-up. Apologies are tendered for the tortuous nature of this example; it deals with a funny situation that arose during playtesting.

9. The Logistics Phase

During the logistics phase of his turn, a player will bring onto the board reinforcements, replacements, and fresh supply units. The following rules apply.

a. Reinforcements

These are brand-new combat units, which become available during the logistics phase of any turn

in which an 'R' appears in the Time Record Track. Details of precisely which units become available on which turns are to be found on the Order of Battle sheets. A 'W' entry signifies the opposite of a reinforcement, i.e. a withdrawal. The OB sheets again specify the historically correct identity of the unit to be withdrawn. If the correct unit is available on the board at full strength, then it is removed from play at this time no matter where it happens to be. If the unit is not at full strength, or if, indeed, it has been eliminated, then other units of equivalent strength must be removed instead.

b. Replacements

The first of the two numbers in each compartment of the TRT, specifies the number of replacement points available during that logistics phase. Replacement points may be used to build up the strength of depleted combat units. Each replacement point adds 1 to the combat strength of the chosen unit. They may be allocated in any way that the player desired, except that units receiving replacements may not be in enemy zones of control, and no unit may have its strength built up to more than its specified maximum. If desired, replacement points may be used to 'reactivate' units which had been completely eliminated on previous turns.

Replacement points may also be used to purchase fortified box markers. One replacement point buys one box. Rules governing the placement of boxes are given in Rule 7.

Replacement points must be used on the turn in which they become available or they are lost.

Losses among *armoured* units my also be made good at this time by repair. See Rule 10.

c. Supply

The second number in each compartment of the TRT specifies the number of supply units which the player is allowed to have on the map at this time. If a player has less than the specified number of supply units, then he is permitted to 'top up' to the specified limit by bringing new supply units onto the map.

If a player already has more supply units on board than the specified limit, he is *not* required to remove the excess. If he already has the exact number, then of course nothing happens.

These restrictions do not apply to captured supply units. In addition to 'his own' Supplies, a player may have on board any number of captured supply units up to the limit provided with the counter mix.

One special case arises, namely that of a player who already has all possible captured supply units on board, and then succeeds in capturing more. In this case he would replace the newly-captured supply unit with an 'ordinary' one of his own, and this unit would then be subject to comparison with the specified limits on available supply.

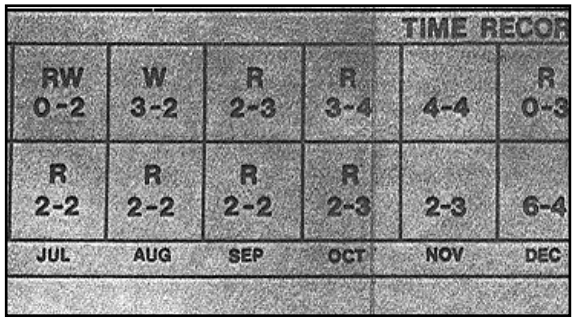
(The rationale behind these limitations is that both sides had other theatres of war to contend with; if the troops in the Western Desert were so well off then supply convoys would have been sent elsewhere).

Reinforcements and supplies must be brought on at *supply centres.* These are marked on the map with a supply symbol, which is often accompanied by a number specifying the *capacity* of the supply centre.

The supply centre must be controlled by the player in order to be used. Control at each start date is clearly implied by the position of the front lines. Supply centres to the East of the front lines are Allied-controlled; centres to the West of the front lines are Axis-controlled. In subsequent play, control is defined by the last unit to occupy or pass through the hex in question. It is perfectly permissible to gain control of a supply centre during an Operations phase and then bring in supplies and reinforcements at that centre during the immediately subsequent logistics phase.

Tripolitania may not be used as a supply centre by the Allied player; neither may Barce. Alexandria and Cairo may not be used by the Axis player. The other centres may be used by either player, depending on control.

The capacity of the centre, marked on the map beside its name, indicates the maximum number of units (either combat or supply) which may be brought on at that centre in one turn. Barce may only take a supply unit; the other centres may take either combat or supply units, or a mixture of the two. The units being brought on must conform to stacking limitations after their placement. Units must be placed on the actual hex of the supply source, save at Alexandria, where the units may be placed either on Alexandria itself, or in an adjacent hex. Note that Tripolitania, Tobruk, Cairo and Alexandria have an unlimited supply capacity (U). Allied units stacked on or adjacent to Alexandria are always deemed to be in general supply (Rule 8); similarly Axis units in Tripolitania are always in general supply.



The Time Record Track. R indicates reinforcements, W indicates withdrawals, the first figure indicates the number of replacement points available that turn, the second figure indicates the minimum number of supply counters the player should have on the board at this time, excluding captured supply units.

Transfer of combat units by sea is permitted between Tobruk and Alexandria for the Allied player, or between Tobruk and Tripolitania for the Axis player. The unit to be transferred must spend the entire operations phase at the point of departure. Then

during the logistics phase it is simply transferred to the desired point of arrival. Units may travel both ways in the same turn. The only limitation on the number of units so transferred is the normal limitation imposed by stacking at the point of arrival. Transfer by sea carries with it the risk of conceding Victory Points to the enemy. See Rule 14.

Replacement points do not come on board at any specific supply centre; but if all supply centres on the board were controlled by the enemy, no replacement points could be brought on. (If things are that bad, you've lost the game anyway.)

10.Repair

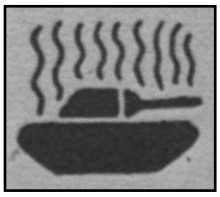
Every time an armoured unit or a recce unit suffers losses for any reason, a wreck marker is placed in the hex which the unit occupies at that moment with a number marker under it showing the number of strength points concerned. During the logistics phase, the player whose turn it is, is entitled to roll a die for each hex *under his control* containing a wreck marker, in an attempt to repair the wrecked tanks. A die roll of 1 or 2 means that 2 strength points' worth of wrecked tanks have been successfully repaired, and the strength points are available at once as replacement points. Obviously, these points may only be used to rebuild armoured or recce units. If all the player's armoured and recce units are at full strength, then the repaired tanks may be saved until a later turn.

A repair die roll of 3 or 4 signifies that 1 strength point may be repaired from that hex; a 5 that 1 strength point has been permanently lost (the tanks are beyond repair); and a 6 means that 2 strength points have been permanently lost. Appropriate alterations are made to the number marker under the wreck.

A wreck marker stays in place until the number marker under it is reduced to zero, when it is removed. Should the number of wreck markers provided with the game prove insufficient, players may coin their own.

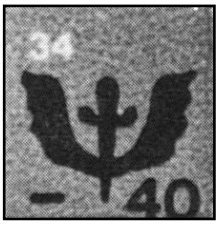
The nationality of the wrecked tanks and of the repairing player, are irrelevant. Both sides were adept at repairing and cannibalising enemy wrecks for their own use. But the Afrika Korps were somewhat more adept than the British; consequently the British player adds 1 to each repair die roll he makes.
Wrecks do not count against the stacking limitations in a hex. No attempt may be made to repair wrecks which are in enemy zones of control, even if the hex is occupied by friendly units.

The above information on the repair of wrecks, is summarised in the Armour Repair Table.



11.Private Armies

In the logistics phase of the October 1941 turn the Allied player receives a special unit representing the Private Armies (Long Range Desert Group, SAS, Popski's Private Army) which operated to such good effect during the desert campaign. The symbol of the winged dagger on the counter is in fact the badge of the SAS; sincere apologies are offered to any ex-members of LRDG or PPA who might happen to come across a copy of the game.



In October '41, or for the No. '41 start date, the Private Army is placed in Cairo; in May '42, at Siwa.

The private army dovetails its move with that of normal combat units but does not take part in normal combat. It does not have a zone of control, and Axis units may pass through it freely. It passes through Axis ZOC at a cost of 1 extra MP, and through Axis-occupied hexes at a cost of 2 extra MP over and above normal terrain costs. It may use strategic movement if over 5 hexes from the enemy, and is immune from supply considerations.

When the Private Army enters the same hex as an Axis supply unit, a die is thrown; a die roll of 1 or 2 signifies that the supply unit has been destroyed. If the same hex is occupied by an Axis combat unit a score of 1 (only) signals the destruction of the supplies.
At any point in either player's turn that the private army is in the same hex as an Axis combat unit, the Axis player may attempt to capture it. A total score of 12 (with 2 die throws) means that the private army counter is captured. Should this happen, the PA counter is taken off the map; but it is brought back on again, at Cairo, during the next Allied logistics phase.

A given Axis unit may only make one attempt per player-turn to destroy the private army counter. Similarly, the PA may only attack one supply-occupied hex per (Allied) turn. Should this hex contain more than one Axis supply counter, then each would be attacked separately. The attacks are resolved at the very end of the Allied player's Operations Phase, and the private army must at that time be in the same hex as the supply unit(s) to be attacked.

After the PA counter has attacked an axis supply unit, it is flipped face down, and may not attack another supply-occupied hex until it has rearmed. To rearm the PA must visit a *base hex* and expend 3 movement points. Having done so (quite possibly in the middle of a segment of movement) it is flipped face-up once more, and may again be used to attack Axis supplies. Base hexes for the private army are Jalo, Siwa and Cairo; Jalo may not be used if there are Axis units East of the Wire. Any base hex actually occupied by Axis units is inoperable.

The private army may visit Tripolitania in its raids, and could attack any supply units found there as if they were in a single hex. Axis combat units in Tripolitania could attack the PA once per player-turn only. (Umpteen Axis units; only one attack.) When attacks are being resolved in a hex containing the PA, Axis supply, and Axis combat units, then the PA has its crack at the supplies before the Axis combat unit tries to capture the PA. Attempts to capture the PA do not require the Axis player to expend combat supply, but the unit doing the capturing must be in General Supply at the time the capture attempt is made. The PA counter is the only unit which may traverse the Quattara Depression. It does so at the cost of 6 MP per hex.

12.Tripolitania

The Tripolitania box at the Western end of the map represents several hundred miles of coastline, including several ports at which the Axis countries brought supplies into Africa. It was not the scene of any fighting until the final Westward advance of the Eighth Army after the Second Battle of Alamein, and this took place outside the period covered by the game. Events in Tripolitania are therefore governed in the following somewhat abstract way.

For movement purposes Tripolitania counts as a single hex, adjacent to all the hexes on the Western edge of the map. Movement from the map to Tripolitania costs 2 MP; movement onto the map costs the movement cost of the hex being entered (clear or road, strategic movement or not depending on the proximity of Allied units). If the Western edge of the map is entirely blocked with Allied units or their zones of control, then Axis units may instead enter the Southern map edge by any of the three Western most unblocked hexes; movement costs for this are as if moving from Tripolitania onto the Western map edge.

No Allied unit except the private army may ever enter Tripolitania.

Notice that the Axis reinforcements of Feb. '41 (or all the Axis units at the March '41 start date) are deemed to have expended 11 movement points during march before entering the map from the Tripolitania box. (Historically, many of the units arrived during the month of March, and Rommel's first offensive in Africa was launched at the very end of the month. This rule seeks to encapsulate these facts.)

Tripolitania is the Axis player's home base; any of his units which begin their turn out of general supply must move toward Tripolitania, according to the provisions of Rule 8. Axis units in Tripolitania are always in general supply, but supply paths may not be traced from combat units on the map to supply units in Tripolitania. During the logistics phase Tripolitania functions as a supply centre of unlimited capacity.

Any number of Axis units may be in the Tripolitania box at any time; normal stacking restrictions do not apply.

Zones of control do not extend from Tripolitania onto the main map, nor from the map to Tripolitania. Consequently there may be no combat between Tripolitania and the map proper.

13.Beginning the Game

Players can elect to begin their re-enactment of the desert campaign at any one of four different "start dates". These are December 1940, March 1941, November 1941 and May 1942.

The Dec.'40 and Nov.'41 start dates begin the game with the British player's portion of the month's turn. For the March '41 and May '42 start dates, the first game turn consists of the Axis player-turn only (and the game then proceeds to the Allied part of the next monthly turn).

The details of the initial placement of forces for each player, are to be found in the Order of Battle lists. There follows an explanation of the abbreviations to be found on these lists.

'hex address' - place the unit in that hex at the start of the game.

'E' - Unit eliminated prior to this start date. It is not available to be rebuilt with replacement points.

'R' - Unit appears as reinforcements during the logistics phase of the stated game-turn. E.g. R8/41 would mean that the unit was to be placed on the map during the logistics phase of the August 1941 turn. The entry R is repeated on the Time Record Track as a reminder.

'W' - The unit is to be withdrawn from the desert during the logistics phase of the specified turn. Simply remove it from wherever it is on the map at that time. When withdrawn, the unit *must be at full strength.* If it is not, or if, indeed, the unit has been eliminated, then another unit of at least equal full strength must be removed instead. Should this not be possible, then players may 'trade' combat strength points from one unit to another in order to build up the exiting unit to full strength. This is the only occasion on which units may trade strength points.

'N' - The unit was not in the Western desert at the given date.

'c' - The unit begins the game with a combat strength as specified. If no starting strength is specified, the unit begins the game at full strength.

'm' - This notation applies to certain Axis units which appear as reinforcements during February 1941. During the Operations phase of the March '41 turn, these units have their movement allowance reduced by 11.

'f' -The unit starts the game with a fortified box marker placed on it.

'B' - The unit begins the game at base camp. Eliminated in previous fighting, it is available to be rebuilt with replacement points if desired.

14.Ending the Game: Player's Objectives

Just as there are four start dates at which to begin the game, so there are four different Stop Dates at which to end it. These are March 1941, September 1941, March 1942, and December 1942. Players can elect to begin the game at any Start Date and play

up to any subsequent Stop Date. In March 1941 and December 1942, the last turn consists of the Allied player-turn only; at the other two Stop Dates, the game ends with the Axis player's turn.

At each Stop Date, the achievement of certain objectives, specified below, earns Victory Points for the player who achieves them. The player with the greater total of Victory Points is the winner. If players have chosen to play a segment of the campaign which runs through several of the game's Stop Dates, then the Victory Points for each stop date played through are added together into a cumulative total to decide the winner. As each of the stop dates is passed through, players should make a note of the Victory Points scored so far and then play on.

In addition to the above, each player has specified conditions which define a Decisive Victory. Should these conditions be met at any point in the game, then the game ends at once with a Decisive win for the relevant player. In this case, the "stop date" victory points are ignored.

So I said to Wommel, my dear chap, you've out of supply, you'll have to wun for it.

Date	Allied Objective	Pts	Axis Objective	Pts
Mar 41	Each Italian Division Completely destroyed	**1**	Each Division That survives (any combat strength)	**4**
			Control Tobruk	**5**
			Control Bardia	**3**
Sep 41	Hold Tobruk not besieged	**15**	Hold Tobruk besieged or not	**15**
	Hold Tobruk besieged	**10**	Besiege Tobruk	**8**
	Hold Halfaya Pass (QQ1)	**2**	Hold Halfaya Pass	**2**
Mar 42	Hold Tobruk not besieged	**7**	Hold El Agheila	**2**
	Hold Tobruk besieged	**4**	Hold Tobruk	**10**
	Hold Benghazi	**2**	Hold Benghazi	**5**
			Besiege Tobruk	**7**
Dec 42	DAK destroyed or off-map in Tripoli	**10**	There were supplied Axis unit(s) east of Mersa Matruh at any point in the game	**12**
	Hold Tobruk besieged	**5**	There are supplied Axis units in Eqypt at game's end	**10**
	Hold Benghazi	**5**	Axis units in Libya on or east of Tobruk at game's end	**5**
	Hold El Agheila	**10**	Axis units still on map	**2**

Notes

To qualify as holding a geographical point, the player must either occupy the hex, or be the last player to have done so. A hex which is in an enemy ZOC does not count as being held, as control of the hex is still under dispute. Note Rule 7 on the effects of fortifications and fortified boxes on Zones of Control.

Siege. (See Sept. '41 objectives). If the Allied player holds Tobruk, but cannot trace a line of communication from Tobruk to Alexandria, then Tobruk is deemed to be under siege. A line of communication is on a path of hexes through passable terrain, of any length. It may not be traced through enemy-occupied hexes or enemy zones of control, even if these are occupied by friendly units. For this purpose a fortified box marker does *not* negate enemy Zones of Control.

For the purposes of the December '42 objectives, DAK comprises the units of the two Panzer divisions. If *all* of these units end the game either completely eliminated or else off-map in Tripolitania, then the

Allied player scores 10 points. He scores nothing for only partially achieving this objective.

The Axis player in December '42, scores only one of the "game's end" objectives, namely the one which scores highest. If he still has supplied units in Egypt, he scores 8 points, and ignores the "Libya" and "on-map" clauses. If he fails to qualify for 8 points, he scores 5 if there are supplied units East of Tobruk; and if that doesn't work he still gets 2 points for having supplied units anywhere on the map.

Axis Decisive Victory

The Axis player claims a decisive victory at the end of any British player-turn which finds a supplied Axis unit on either Alexandria or Cairo.

British Decisive Victory

The British player claims a decisive win at the end of any Axis player-turn from March 1941 (inclusive) onward which finds the entire map (excluding Tripolitania) free of any Axis unit.

Should either player achieve a decisive victory, the game ends at once. "Stop-date" victory points are ignored, and the winning player scores 25 victory points.

In addition to these objectives, any player who attempts transfer of units by sea (Rule 9) must throw a dice. A throw of 1 or 2 has no effect; a 3 or 4 concedes 1 Victory Point to the enemy. A 5 or 6 concedes 2 Victory Points. During 1940 and 41, the Axis player adds 1 to the die roll. (These points represent shipping losses during the transfer. The die roll modifier is a tribute to Force K of the Royal Navy, based on Alexandria. But in December 1941 Italian frogmen penetrated the harbour...)

OPTIONAL RULES

The following rules may be added to the above, in any combination that players may agree on, in order to give a somewhat more detailed simulation of the desert campaign, at some expense in simplicity.

15.White Knees

Units which arrived in the desert for the first time, often needed a period of adjustment before they became "desert-worthy". These people were easily recognised by desert veterans by the fact that their knees, visible below their shorts, had not yet become sunburned. In game terms: Units which arrive as reinforcements, for the first two operations phases in which they appear, (i.e. one friendly and one enemy ops phase) suffer a "white knees" combat strength modifier of -2. To eliminate such units you still need to reduce the *printed* combat strength, to zero.

This rule does not apply to any units which start the game in December 1940, nor to any German units, nor to the Italian reinforcements of February 1941 (these divisions had been in Africa for some time before their appearance in the Western desert).

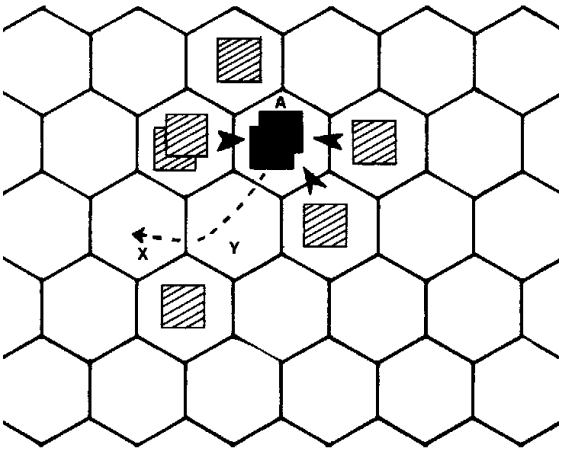
16.Concealed Movement

In the basic game, as in many other wargames, units are in full view of both players at all times. If players feel that this is an unacceptable compromise with reality, they are perfectly entitled to institute concealed movement rules. No stack of enemy units may be examined until after a round of combat has been declared involving the units in question.

If this rule is adopted, then the British private army unit should be permitted to examine the contents of any enemy stack in the same hex, at any point in its move. The stack being examined must be more than five hexes distant from any other *British* unit (the Long Range Desert Group did not operate in the forward battle area).

17.Retreat of Mechanised Units

Any unit whose movement allowance is 25 or greater, is regarded as mechanised, whether its unit type symbol indicates so or not. Stacks consisting entirely of Mechanised units, contrary to the provisions of Rule 6 concerning retreats, *are* permitted to retreat through enemy zones of control if no other path of retreat is available. The only stipulation is that the stack must lose 1 strength point for each enemy zone of control entered during its retreat.



Mechanised retreat. Optional Rule allows any units with a movement allowance of 25 or greater to retreat through enemy ZOC if no other route is available. In the above example the units at A could retreat along the track x-y, at a cost of 2 strength points.

Example. A stack completely surrounded by enemy units and zones of control, suffers a '3' result on the CRT. It could, at the owning player's option, lose 1 strength point, retreat into an enemy-controlled hex, and then into an uncontrolled hex. The option to retreat 3 hexes would not be open; but all the other ways in which a stack could absorb a result of '3' would be permissible. This rule applies to retreat as a result of combat, and also to the retreat of unsupplied units toward home base. Unsupplied units are not *required* to retreat through enemy ZOC; but they may do so if their owner wishes, shedding one strength point for each enemy ZOC entered.

Players may be interested in the rationale behind this rule. It is to be found in an essay entitled "The Rules of Desert Warfare" by Erwin Rommel.

"In the flat desert country, so well suited to motor transport, the encirclement of a fully motorised enemy produces the following results:

a. The enemy is placed in the worst tactical situation imaginable, since fire can be brought to bear on him from all sides. Even when he is enveloped only on three sides his position is tactically untenable.

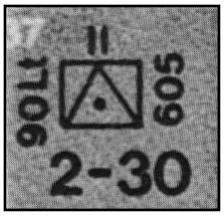
b. When the envelopment is completed, he is tactically compelled to evacuate the area which he occupies.

The encirclement of the enemy and his subsequent destruction in the pocket, can, however, seldom be the primary aim of an operation but is usually only an indirect object, for a fully motorised force whose organisational structure is intact will normally and in suitable country be able to break out at any time through an improvised defensive ring. Thanks to motorisation, the commander of the encircled force will be in a position to concentrate his main effort unexpectedly against a favourable point and force his way through. Time and again this was demonstrated in the desert."

18.Eighty-Eights

The three Panzer Jager (anti-tank) battalions provided among the Axis units, are not used in the Basic Game. Amongst their weapons they included the famous 88 mm flak gun - the "eighty-eight". If players choose to include the units in the game, the following rules apply.

In any combat where the defending stack includes one or more antitank units, and the (British) attackers include armour, there is a combat modifier of -3. In any combat involving anti-tank units and British armour, no matter who is attacking, the British must take the first point of any CRT loss in the form of a strength loss from the armoured unit.



19.Play Balance

The allocated combat strengths, replacement rates, victory points, etc., are designed to reflect the actual conditions which prevailed during the desert campaign. After some experience of the game, players may come to feel that things are biased in favour of one side or the other. Players who are more interested in an evenly-balanced game of skill than a strictly 'historical' simulation, are perfectly entitled to adjust matters to correct any bias they may think they detect. In the designer's opinion, the most delicate way of doing this is to adjust the numbers of replacement points available to each side. A less sensitive method would be to adjust the victory points awarded for the various objectives. To give one side an extra supply unit for one or more game turns, is to confer an enormous advantage; this could still be done, perhaps, in a game between an expert and a novice.

Desert Rats: Players' Notes.

Above all, *Desert Rats* is a game of fast movement, simulating one of the most mobile campaigns in history. The opportunity for mobile cut-and-thrust is three fold. It comes from

a. the movement allowances (obviously),

b. the relatively small number of units on the board,

c. the fact that the desert flank is always open.

The brake on all of this is the supply problem; both players will spend long periods wondering where on earth their next supply unit is coming from. It therefore becomes crucial to position your limited supplies to best advantage, and it is a good maxim that you should not move a single combat unit until you have a clear picture in your mind of exactly where your supply units are going to be by the end of your turn. Capturing enemy supplies is highly recommended; best of all is to leave large portions of his army out of supply, since they will then be forced to retreat. It is often better to allow them to do this than to permit them to form a defensive huddle round some supply source (such as Tobruk); in this way, your opponent can be kept permanently off balance. In the designer's intention, this ploy encapsulates the command paralysis which Rommel would often inflict on his opponents, as well as the logistic problems which are apparent from a superficial interpretation of what is happening over the board. The Afrika Korps' celebrated "dash to the wire" during the Crusader battles of 1941 is a good case in point. The Germans narrowly missed capturing a number of supply dumps (the optional concealed movement rules) and were on the verge of causing the Eighth Army commander to order a general retreat. Happily for the British, General Auchinleck countermanded the order and pressed on with his offensive, forcing Rommel to fall back in his turn. Maybe in your game the Auk will not make it in time...

"Supplies are the basis of the battle, and must be given priority of protection". (Erwin Rommel)

"I would never consider a commander completely successful until he had restored the situation after a serious defeat and a long retreat". (Richard O'Connor).

Defensive tactics are the most tricky part of the game to master. Firstly, at the end of your turn your supply units should be placed far enough forward to keep your front-line forces in general supply, and simultaneously far enough back so that your opponent can't get to them in his turn with the supplies *he's* got. A difficult tightrope to walk; have fun learning the art of balance. (For the first few games, this will probably be the hard way. One comment from a playtester was that "it takes time to get used to these movement rates").

It is a good idea to maintain a strategic reserve (particularly, for the British player, at Alexandria). Certainly, no supply unit should ever be left naked in a hex where the enemy can get at it. If a sufficient

reserve has been mustered, it can be moved forward to cover the retreat of its fellows, giving them time to regroup in the rear, and hopefully to wrest the initiative back from your opponent, whose own precipitate advance is likely to have overstretched his supply lines.

In the heat and dust of the battle itself, the defender has a few ploys available to him. Notably in the conduct of his retreats. If some of your units elect to stand and take their losses the hard way, then enemy units which have blithely advanced after combat can find themselves cut off from supply during his next round of combat. This will make him cautious about advancing too far next time. Or else his advancing stacks will have to drop units off to maintain his line of communication, and this will also serve to take the sting out of his attack. Conducting your retreats so as to lead him onto your second line of defence can have the same effect; either that, or he will have to consume movement points bringing more units forward. And not even these movement rates last for ever. Then it will be your turn.

"The decisive factor is the organisation of one's resources to maintain the momentum" (von Thoma).

"Hang on and bite deeper and deeper and hang on until he is finished. Give him NO rest" (Auchinleck).

All right then. Your rendition of 'Lili Marlene' counts as a +2. But for which side?

The Scenarios

1. **Beda Fomm (Dec 40 – Mar 41)**

A short introductory game, intended to enable players to learn the game system. Remember, O'-Connor bagged the lot. A good solitaire exercise, but not many players will agree to take the part of the Italians; unless this is the prologue to one of the longer games, in which case the Axis player has the comfort of knowing that he's got Rommel coming on next, when he can get his own back.

2. **Cyrenaica (Summer 1941)**

Obviously, Tobruk is the key to victory; the Allied player will do his best to hold on to the place, the Axis player will do his utmost to take it. Even if he holds on to Tobruk, the British player can throw away victory by conceding shipping losses during sea transfer operations. So he cannot afford to passively sit inside his fortifications, but must attempt some sort of counteroffensive to lift the siege (Operation Battleaxe). The Axis must attempt to hit Tobruk as hard as he can, while simultaneously maintaining the initiative on the Egyptian border. Good luck to both of you.

3. **Crusader (Nov 41 – March 42)**

The starting position is a highly explosive one. The British are again seeking to relieve Tobruk, while the Axis have just completed their preparations for the final assault which will take it. This scenario provided some of the hardest-fought ding-dong battles during playtesting, with victory going to the chap who made the last mistake but one.

4. **Gazala to Alamein (Summer 42)**

In this scenario the Axis must maintain the initiative given him by right of first movement. He will not get Tobruk on his first turn, as it is out of reach of his supply lines. The object of the first turn must be to put the bulk of the British out of supply. Enjoy working out how to do it.

The British player can make a determined stand in Tobruk if he wants to, but he may well judge that the small number of victory points riding on the place this time, does not justify the cost in chewed-up brigades and shipping losses. The Axis can still make a lunge at the canal by bringing their supplies up through Bardia (Bardia?). When you reach the Qattara Depression the position stabilises. Rommel, at the end of a very long supply line, is unlikely to be able to break through the stiffening defence, as he no longer has the open flank to work with. After once notching up the victory points for passing Mersa Matruh, the Axis player has the difficult choice of whether to stand and defend on the Alamein line (where the British don't have the desert flank to work with either), or to conduct a mobile defence further back. All he has to do by now is stay on the board. But the British have an awful lot of supplies suddenly...

5. **The longer scenarios** present all the above problems in whatever combinations the players may choose. Your appreciation of the overall importance of the various objectives will be coloured by the state of play so far, in the shape of the points accumulated from those 'stop dates' already passed through. But the game is never lost until the last move; there's always the possibility of a goof that will let you through for a decisive win. May you always hit your opponents for six "wight out of Afwica".

SELECT BIBLIOGRAPHY

Many thousands of words have been written on the desert campaign, and any attempt at a full list would be exhausting rather than exhaustive. Among the works consulted during the design of 'Desert Rats' were the following:

Barnett, Corelli: The Desert Generals

Churchill, Winston: The Second World War

Carver, Michael: El Alamein.
Tobruk.

Cowles, Virginia: The Phantom Major.

Douglas Home, Charles: Rommel.

Fuller, Maj. Gen. J.F.C.: The Decisive Battles of the Western World.

Jewell, Derek (ed) & the staff of the Sunday Times: El Alamein and the Desert War.

Kesselring, Albert: Memoirs.

Liddell Hart, B.H.: The Second World War
The Tanks
The Other Side of the Hill
The Rommel Papers.

Lucas, James: Panzer Army Africa.

Montgomery of Alamein, Field Marshal the Viscount: Memoirs El Alamein to the River Sangro.

Macksey, Major K.J.: Tank Warfare
Afrika Korps
Panzer Division
Tank Force.

Mellenthin, F.W. von: Panzer Battles.

Moorehead, Alan: The Desert War.
Montgomery.

Playfair, I.S.O.: The Mediterranean & Middle East (4 vols).

Peniakoff, Vladimir: Popski's Private Army.

Purnell's History of the Second World War (many authors).

Rogers, Col. H.C.B.: Tanis in Battle.

Swinson, Arthur: The Raiders.

Tute, Warren: The North African Campaign.

Young, Desmond: Rommel, The Desert Fox.

AXIS ORDER OF BATTLE									
Unit No	**Identity**	**START DATES**							
		Dec 40*		**Mar 41**		**Nov 41**		**May 42**	
1	1 Libyan	SS10(f)		E		E		E	
2	2 Libyan	PP9(f)		E		E		E	
3	1 Blackshirt	P35		E		E		E	
4	2 Blackshirt	RR1		E		E		E	
5	4 Blackshirt	SS8(f)		E		E		E	
6	62 Div.	P36		E		E		E	
7	63 Div.	MM6(f)		E		E		E	
8	64 Div.	QQ5		E		E		E	
9	Arm Brig.	T30		E		E		E	
10	Pavia Div.	N	R2/41m 11	Trip m11		S31(f)		Q22	
11	Bologna Div.	N	R2/41m 11	Trip m11		S30(f)		D3(c3)	
12	Brescia Div.	N	R2/41m 11	Trip m11		S29(f)		R21	
13	Trento Div.	N	R2/41m 11	Trip m11		SS1		S22	
14	Ariete Div.	N	R2/41m 11	Trip m11		O31		N22	
15	Pz Reg 5	N	R2/41m 11	Trip m11		R34		O22	
16	Pz Gren Reg 104	N	R2/41m 11	Trip m11		R34		O22	
17	Recce Bn 3	N	R2/41m 11	Trip m11		O34		O22	
18	Pz Reg 8	N		N	R4/41	S33		N21	
19	Pz Gren Reg 115	N		N	R4/41	S33		N21	
20	Recce Bn 33	N		N	R4/41	S33		N21	
21	Fascisti Div.	N		N	R7/41	P35(f)		E	
22	361 Inf Reg	N		N	R8/41	RR1		N20	
23	200 Inf Reg	N		N	R8/41	S32		N20	
24	155 Inf Reg	N		N	R8/41	S32		N20	
25	Recce Bn 580	N		N	R8/41	O33		N20	
26	Sabratha Div.	N		N	R9/41	V12		T22	
27	Trieste Div.	N		N	R9/41	O28		O23	
28	Savenna Div.	N		N	R9/41	Q36(f)		E	
29	Littorio Div.	N		N		N		N	R5/42
30	Folgore Div.	N		N		N		N	R7/42
31	51 Para Brig.	N		N		N		N	R7/42
32	125 Inf Reg	N		N		N		N	R8/42
33	382 Inf Reg	N		N		N		N	R8/42
34	433 Inf Reg	N		N		N		N	R8/42
	Supply	SS8 T30		Four in Trip		V12 S32 S32		Trip D3 T7 O21	
	Optional Units								
35	Pzjg. Bn 39	N	R2/41m 11	Trip m11		R34		O22	
36	Pzjg. Bn 33	N		N	R4/41	S33		N21	
37	Pzjg. Bn 605	N		N	R8/41	Q36			

* All the Axis 2/41 reinforcements must be placed in Tripolitania

BRITISH ORDER OF BATTLE									
Unit No	Identity	START DATES							
		Dec 40		Mar 41		Nov 41		May 42	
1	7 Arm Brig	RR14		SS33(c3)		MM3		NN30	
2	4 Arm Brig	RR14		SS33(c3)		MM3		NN30	
3	7 Supp Gp	RR14		SS33(c2)		MM3		NN30	
4	16/6 Aux	S32		RR30		FF35(c3)		E	
5	5/4 Ind	Q16	W12/40	N	R4/41, W7/41	N		N	
6	11/4 Ind	Q16	W12/40	N	R4/41	QQ3		SS1	
7	3 Arm Brig	N	R2/41	B4		E		E	
8	2 Supp Gp	N	R2/41	D3		E		E	
9	24/9 Aus	N	R2/41	T8		RR15(c3)		PP16(c4)	
10	3 Ind Mot	N	R2/41(c4)	R30(c4)		B		N27	
11	22 Gds	N	R3/41	RR30		LL3		Q30(f)	
12	Polish Brig	N	R3/41	SS32		T29(f)		E	
13	7/4 Ind	N	R3/41	SS32		PP2		EE35(c4)	
14	20/9 Aus	N	R3/41	T30		RR15(c3)		PP16(c5)	
15	1/7 Aus	N	R3/41	RR31	W7/41	N		N	
16	2/7 Aus	N	R3/41	RR31	W7/41	N		N	
17	23/4 Ind	N		N	R5/41	PP2		FF35(c3)	
18	1 Army Tk	N		N	R6/41	QQ3		O28	
19	18/9 Aus	N		N	R6/41	QQ16(c4)		PP25(c5)	
20	5/2 S Af	N		N	R6/41	NN2		E	
21	9/5 Ind	N		N	R7/41, W8/41	N	R1/42	S31	
22	10/5 Ind	N		N	R7/41, W841	N	R1/42	Q34	
23	29/5 Ind	N		N	R7/41	LL4		O32	
24	6/2 S Af	N		N	R7/41	NN2		T29	
25	32 Army Tk	N		N	R9/41	T29(f)		S27	
26	22 Arm Brig	N		N	R9/41	LL3		P29	
27	23/70 Div	N		N	R9/41	T30		FF35(c3)	
28	14/70 Div	N		N	R9/41	T30		FF35(c3)	
29	2 Arm Brig	N		N	R10/41	RR30		P29	
30	1/1 S Af	N		N	R10/41	RR31		S26(f)	
31	2/1 S Af	N		N	R10/41	RR31		T25(f)	
32	3/1 S Af	N		N	R10/41	RR32		T25(f)	
33	4/1 S Af	N		N	R10/41	RR32		S30	
34	Private Army	N		N	R10/41	EE36		AA6	see rule 11
35	Free French	N		N		N	R12/41	O27(f)	
36	151/50 Div	N		N		N	R12/41	R26(f)	
37	150/50 Div	N		N		N	R12/41	Q27(f)	
38	69/50 Div	N		N		N	R1/42	R26(f)	
39	18/8 Ind	N		N		N	R5/42	SS31	
40	21/10 Ind	N		N		N	R5/42	SS31	
41	25/10 Ind	N		N		N	R5/42	SS32	
42	4/2 NZ	N		N		N		N	R6/42
43	5/2 NZ	N		N		N		N	R6/42
44	6/2 NZ	N		N		N		N	R6/42
45	161/8 Ind	N		N		N		N	R7/42
46	131/44 Div	N		N		N		N	R7/42
47	132/44 Div	N		N		N		N	R7/42

BRITISH ORDER OF BATTLE									
Unit No	**Identity**	**START DATES**							
		Dec 40		**Mar 41**		**Nov 41**		**May 42**	
48	8 Arm Brig	N		N		N		N	R8/42
49	23 Arm Brig	N		N		N		N	R7/42
50	2/ NZ	N		N		N		N	R9/42
51	152/51 Div	N		N		N		N	R9/42
52	154/51 Div	N		N		N		N	R9/42
	Supply	SS32 SS32 QQ14		I15 T30 SS32		RR15 SS32 T30		T30 SS1 SS32	

Explanation of the abbreviations found on the Order of Battle:

'hex address' - place the unit in that hex at the start of the game.

'E' - Unit eliminated prior to this start date. It is not available to be rebuilt with replacement points.

'R' - Unit appears as reinforcements during the logistics phase of the stated game-turn. E.g. R8/41 would mean that the unit was to be placed on the map during the logistics phase of the August 1941 turn. The entry R is repeated on the Time Record Track as a reminder.

'W' - The unit is to be withdrawn from the desert during the logistics phase of the specified turn. Simply remove it from wherever it is on the map at that time. When withdrawn, the unit *must be at full strength.* If it is not, or if, indeed, the unit has been eliminated, then another unit of at least equal full strength must be removed instead. Should this not be possible, then players may 'trade' combat strength points from one unit to another in order to build up the exiting unit to full strength. This is the only occasion on which units may trade strength points.

'N' - The unit was not in the Western desert at the given date.

'c' - The unit begins the game with a combat strength as specified. If no starting strength is specified, the unit begins the game at full strength.

'm' - This notation applies to certain Axis units which appear as reinforcements during February 1941. During the Operations phase of the March '41 turn, these units have their movement allowance reduced by 11.

'f' - The unit starts the game with a fortified box marker placed on it.

'B' - The unit begins the game at base camp. Eliminated in previous fighting, it is available to be rebuilt with replacement points if desired.

[Notes: Order of Battle errata have been incorporated into the above tables. I have made one change - the reinforcement date for **British Unit 38, 69/50 Div**, has been changed from "**R1/41**" to "**R1/42**". The **Axis Unit 37, Pzjg. Bn 605, May 42 Start Date** was blank on the printed Order of Battle. cgm]

TERRAIN EFFECTS CHART		
Terrain	**Movement Cost**	**Effect on Combat**
Clear	2 MP's*	No Effect
Sand	6 MP's	No Effect
Rough	4 MP's	+ 3 to defender
Track	1 MP along track*†	No Effect
Coast Road	½ MP along the road*†	No Effect
Depression	Impassable except for the Private Army (6MP's for PA)	Impossible
Ridge Hexside	No Effect	- 2 to attacker
Escarpment Hexside	+ 8 MP's	- 5 to attacker
Nile Hexside	Impassable	Impossible
Town	No Effect	No Effect

* Movement costs of these types of terrain are halved during strategic movement.
† Track and coast road negate other terrain costs provided a unit is moving *along* the road or track. *Exception:* Roads negate escarpment costs but tracks do not.

Did you ever get 'With the Pay Corps at Tobruk' published?

ARMOUR REPAIR TABLE	
Die Roll	**Effect**
1	2 Strength points repaired
2	
3	1 Strength point repaired
4	
5	1 Strength point lost
6	2 Strength points lost
7	

Roll for each controlled hex containing a wreck marker which is not in enemy ZOC. Make the appropriate reduction to the number marker under the wreck; if reduced to zero, then the wreck marker is removed from the map.

Strength points given as repaired may be used as replacement points for armoured and recce units, or saved until a later turn.

COMBAT RESULTS TABLE

Die Roll	**Differential**											**Die Roll**
	-5	**-4,3**	**-2,1**	**0**	**+1**	**+2,3**	**+4,5**	**+6,7**	**+8,9**	**+10,11**	**+12 +**	
1	5/0	4/0	3/0	2/0	2/0	2/0	2/0	1/1	1/1	1/1	1/2	**1**
2	4/0	3/0	2/0	2/0	2/0	1/0	1/1	1/1	1/2	0/2	0/2	**2**
3	3/0	2/0	2/0	1/0	1/0	1/1	1/1	0/1	0/2	0/2	0/3	**3**
4	3/0	2/0	2/1	1/1	1/1	1/1	0/1	0/2	0/2	0/2	0/3	**4**
5	2/0	2/1	1/1	1/1	1/1	0/1	0/1	0/2	0/2	0/3	0/4	**5**
6	2/1	1/1	1/1	0/1	0/2	0/2	0/2	0/2	0/3 (Tobruk)	0/4 (Bardia)	0/5	**6**

Calculate total attacker's strength minus total defender's strength. Add on the following situation modifiers:

For each *unit* attacking across a ridge	-2*
For each *unit* attacking across an escarpment	-5
Each armoured or recce unit attacking a fortification or fortified box	-2
Any Defending *stack* is out of combat supply	+2
Any Defending *stack* is in rough terrain	-3
Any Defending *stack* includes Pz Jg attacked by armour	-3 (Optional)
Any Defending *stack* is in fortification or fortified box	- (value).

These modifiers are cumulative; if several are relevant, add in all of them. The result is the frnal combat differential. Cross-refer the differential with the result of the die roll, and obtain two results e.g. +6, die roll 3 gives 0/1 Attacks at worse than -5 are treated as -5; attacks at more than +12 are treated as +12.

Results are attacker's loss/defender's loss. Losses may be taken either as a loss of that many strength points (owner chooses which unit or units will take the loss) or as a retreat, by all the units involved, of that many hexes, or as any desired combination of strength losses and retreats which together make up the indicated result.

Thus, a loss of 2 could be taken as one unit losing 2 strength points; or two units losing 1 point each; or a 1-point loss and all units retreat one hex; or all units retreat 2 hexes. The owning player decides how the losses will be taken and retreats his own units. See Rule 6 and Optional Rule 17 for restrictions on retreats.

Any attacker loss on the CRT, if achieved during an attack on a fortification, signifies that no further attacks may be made on that fortification during the current turn.

*Notice that it is perfectly possible for a unit's *net* contribution to the combat differential to be negative.

CHRONOLOGY OF THE DESERT CAMPAIGN			
Date	**The Desert**	**Mediterranean & Middle East**	**Other Theaters**
10/6/40		Italy declares war	
11/6/40	British raids on Libya		France capitulates
8/9/40	Italians advance to Sidi Barrani	British driven out of Somalil-and. Air attacks on Malta	Battle of Britain
28/10/40		Italy invades Greece	
12/40			The Blitz
8/12/40	Operation Compass Italians defeated at Sidi Barrani		
4/1/41	Bardia taken		
21/1/41	Tobruk taken		
6/2/41	Benghazi captured Italians defeated at Beds Fomm		
2/41	Desert Offensive halted; troops sent to Greece	Abyssinia reconquered. Soma-liland retaken. Germany at-tacks Bulgaria	
12/2/41	Rommel enters Africa		
31/3/41	Rommel attacks at El Agheila		
4/41		Germany invades Yugoslavia & Greece	
6/4/41	O'Connor taken prisoner		
4/4/41	German units reach outskirts of Tobruk		
12/4/41	Bardia falls		
24/4/41		Greece surrenders. British eva-cuated	
5/41	Op. Brevity fails to relieve To-bruk	Pro-Axis revolt in Iraq crushed	Bismarck sinks Hood; then is sunk herself
21-27/5/41		Crete captured by German paratroops at heavy cost	
6/41	Op. Battleaxe fails to relieve Tobruk. Both sides pause to build up strength		
22/6/41			Operation Barbarossa (Delayed 6 weeks by Balkan campaign.)
2/7/41	Auchinleck relieves Wavell as GOC Middle East		
9/41	Relief, by sea, of Australian garrison of Tobruk	Campaign to secure Persian oilfields	Germans fail to take Leningrad
11/41	Op. Crusader raises siege of Tobruk Rommel falls back to El Agheila	U-boats in Med. "Ark Royal" sunk after flying a/c to Malta. "Barham" sunk	Germans halted before Moscow
12/41	Italian frogmen raid Alexandria "Queen Elizabeth" & "Valiant" badly damaged	Luftwaffe deploys in Sicily. Heavy raids on Malta. Convoys badly hit	Japan attacks Pearl Harbour and Malaya. "Prince of Wales" & "Repulse" lost
1-3/42	Rommel attacks at El Agheila. Advances to Gazala. Both sides pause		Hong Kong and Singapore fall. Invasion of Burma
5-6/42	Rommel attacks at Gazala. Battle of the Cauldron. Tobruk falls; Eighth Army retreat. Rommel reaches Mersa Matruh	Convoys get through to Malta. Axis cancel plans to invade, and let Rommel go for Egypt	Battle of Midway. German summer offensive in Russia
7/42	Rommel's advance stopped at El Alamein		
8/42	Alexander and Montgomery replace Auchinleck and Ritchie. Battle of Alam Halfa		Germans reach Caucasus oil-fields
9/11/42			Heavy fighting in Stalingrad
23/10/42	Second Battle of Alamein opens		
2/11/42	Operation Supercharge. Rom-mel begins retreat to Tunisia		
8/11/42		Operation Torch. Landings in Oran, Algiers & Morocco	

CHRONOLOGY OF THE DESERT CAMPAIGN			
Date	**The Desert**	**Mediterranean & Middle East**	**Other Theaters**
19/11/42			Russian attacks encircle Sixth Army in Stalingrad
2/43	Kasserine Pass. Tunisian Campaign.		Sixth Army capitulates
3/43			Worst Convoy losses in Battle of Atlantic
13/5/43	All Axis resistance in Africa ceases		

For a period of two years the campaign in the Western Desert represented virtually the only major contribution by Britain and the British Empire to the war on land against Germany and Italy. It was also, as has been remarked, the last campaign that the British Empire would ever undertake in history.

The present writer is keenly aware of his utter inability to add anything of moment to the huge number of works already devoted to the subject, some of which are cited in the bibliography. But the following brief chronology may be of some assistance to players of "Desert Rats", in reminding them of the most salient points of the course of the campaign, and the way in which it related to events elsewhere in the Middle East and in the other theatres of the Second World War. These relationships have found their way into the game at several points, notably in the allocation of reinforcements, replacements, and supplies to either side, and in the way that the British player is required to withdraw various units from time to time during 1941. If your pet offensive is being hamstrung for lack of supplies, or the enemy imposes crippling losses which you find it hard to make up, then reflect on what was happening elsewhere, and understand.