Heroes All

WW2 tabletop wargame rules

by

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Introduction

Heroes All is a set of rules allowing two wargamers to play a small engagement between infantry, armour and supporting arms on a smallish table - probably no bigger than 6ft x 4ft.

The opening sections cover movement, observation and firing. Simple rules for morale and the orders of Officers are also provided but you will also find rules here for paratroops and gliders, concealment and ambushes, assaults supply. In fact, all you need to play your game is within these pages.

Take out the 2-player Command & Control section, slot in the **Fight Your Own Battles** mechanism and you have the same game but **solo**! No need to learn 2 sets of rules, simply use the same set for both styles of game. In fact, a lot of the solo rules are included here *and shown in red italics throughout these pages* .

Heroes All is based around the infantry element representing the platoon which is shown on the table-top as a group of 8 figures. 3 or 4 platoons plus an HQ make up a Company and 3 or 4 of these make up a battalion (with whatever attached elements are deemed appropriate). Armour is represented by a single tank as a troop with 3 or 4 troops in a squadron and 3 squadrons plus a HQ making up a regiment.

To help you marry your existing armies with these rules, you can download the CODEX giving all the movement and firing information you need. The CODEX is offered in both tabular form and as set of 66mm x 91mm cards which can be printed and sleeved to become instant reference guides.

There is also a Quick Reference Guide section that presents all of the useful tables found in these rule pages. Print them off and sleeve or laminate them for easy reference when playing the game.

You will need a supply of dice - D3, D4, D6 and D10 are the most common. Once you have read through the rules, simply pick your forces and start to play.

We hope that you enjoy Heroes All, the videos on the Fight Your Own Battles **YouTube** channel and the material presented at **www.fightyourownbattles.co.uk**

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Quick Reference Tables

The cost of your army

Gamers will happily lift forces from scenarios without worrying about the actual values attached to elements. However, there will be times when you will want to put your own forces together and fight your own scenarios.

The Heroes All **Weapons Codex** gives values for guns, vehicles and other weapons. Each figure is costed depending on abilities - a feature of these rules that allows them to fit into the Fight Your Own Wars campaign rules.

Cost of infantry

1 pt	Poor, green or militia	Line troops, man Crew Served Weapons and artillery pieces up to and including 75mm. Carry grenades, dig trenches and other earthworks, operate radios. Ride a horse, bicycle or motorcycle. Paddle a boat.
2 pts	Poor/green (Enhanced)	All of the above **plus** Gunners who are poor troops. FOO or Recce troops who are poor.
1 1/2 pts	Regular	as (1pt) **Poor** above **plus** operate motor boats, land in a glider.
3 pts	Regular (Enhanced)	as **Regular** above **plus** Parachute, man artillery pieces as a gunner, act as an Engineer, FOO or recce troops. Take part in Special Operations (LRDG) etc.
2 pts	Elite, veteran	As per (1 1/2pt) **Regular** above
4 pts	Elite, veteran (Enhanced)	As per **Regular (Enhanced)** above. Snipers are costed as "Elite (Enhanced)".
8 pts	Special Character	Refer to Fight Your Own Wars for details

Note that for Momentum purposes, Poor & Poor (Enhanced) troops are considered to be Poor, Regular & Regular (Enhanced) troops are considered to be Regular and Elite & Elite (Enhanced) are considered to be Elite.

General rules

The Wargame Day

A wargame bound lasts for 1 hour. A wargame day lasts for 24 bounds divided into 6 **sessions** of 4 bounds.

In summer, daylight lasts from 0400 hrs to 2000 hrs (4 sessions) with 2 night sessions of 4 bounds each.

In Autumn, daylight lasts from 0800 hrs to 2000 hrs (3 sessions) with 3 night sessions of 4 bounds each.

In winter, daylight lasts from 0800 hrs to 1600 hrs (2 sessions) with 4 night sessions of 4 bounds each.

In spring, daylight lasts from 0400 hrs to 1600 hrs (3 sessions) with 3 night sessions of 4 bounds each.

Bounds and turns

A **bound** comprises one complete set of turns undertaken by each active element on the table, off-table artillery, aircraft etc.

A **turn** refers to the activity undertaken by a specific element during each bound.

Phase (solo game only)

In a solo game, a **phase** refers to that part of an element's turn relating to each of the activities that it may undertake.

For example - During bound 4, in the light mortar's turn, it will get a **fire** phase, a **move** phase and an **act** phase. The order in which these phases happen is determined by the **Order Dice** (see Fight Your Own Battles rules for full details).

Composition of a force

Whilst there are no specific rules regarding the composition of a force, it is expected that wargamers will adhere to basic military principles.

Composition of an element

An element is described as any group of infantry, specialist troops, crew-served weapons (CSW), armoured or soft-skinned vehicles etc operating together **or** a vehicle, CSW etc standing independently.

Elements must be defined and identified at the start of the game.

An NCO and 7 figures make up a platoon in a typical Heroes All game

Cohesion within an element

To retain cohesion, infantry and cavalry figures must be within 1 inch of any other figure in the element. Vehicles may be 6 inches apart and artillery pieces forming a battery 3 inches apart.

Figures specifically allocated as **Guards** at a location and placed on **Overwatch** must be within 12 inches of each other.

This German infantry platoon of 8 men and the 2-man Panzerschrecke team attached to them maintain cohesion by being within 1 inch of each other

The "box"

At the two edges of the table "belonging" to the combatants, is an area known as the "box". This is an area which is neither on the table nor on the road joining this table with any other.

This is the area where elements wait to be activated and then move onto the table.

Reserves are also held here along with any aircraft that are due onto the table at a later bound.

The player may wish to cover these forces so that his opponent cannot see what is waiting to enter the battle.

Forces in the "box" are not active until they appear on the table, nor can they move, fire, act or be attacked.

This A9 Cruiser with a platoon of infantry is waiting in the "box" before entering onto the table.

Officers - rank and abilities

In the following rules, the term "NCO" is used generically to mean a Junior Officer. The term "Junior Officer" can be substituted if required.

At the start of the game, the NCO of each element in a player's force is rated using a D6 throw.

If the element is classed as Elite or veteran troops, add 1 to the throw. If the element is classed as Green or Poor troops, deduct 1 from the throw.

Local "resistance" or militia elements' scores are not modified.

The resultant throws will rank the NCO

0	Weak	Rating 0
1	Cautious	Rating 1
2 - 5	Regular	Rating 2
6	Bold	Rating 3
7	Inspirational	Rating 4

Transport elements

Lorries and armoured carriers allocated to transport duties are not given an NCO nor are they rated.

When they are carrying an element, they will be under the command of the NCO of that element who will dictate it's actions.

Armoured transports may only use their weapons when they are carrying passengers. Players should be clear that an armoured half-track that mounts, for example, a howitzer for close support **will** have a rated NCO as it can be activated for that purpose when not carrying passengers. In such a case, the rating of the NCO will dictate the activity of the vehicle **not** the NCO of any passengers,

If a transport moves when empty, it will behave as if it was a "Regular" element.

Rating the officers before a game - the NCOs of the Daimler Mk II's are both rated as "Regular (2)". The NCO of the infantry platoon on the right is "Cautious (1)" and the 2-man artillery FOO team in the centre is "Bold (3)" having thrown a 6. The red dice on the left is thrown in a solo game to indicate that the tank Squadron Officer is rated "Regular (2)" and the green die at the front is for the infantry Company Officer of the force - he is also rated "Regular (2)" having thrown a 3.

Command and Control for 2-Player games

In 2-player mode, players are free to make whatever decisions they wish about their elements or reserves. Simple "Morale" rules apply to test the ability of an element to continue fighting.

Each bound, a player gets 1 x D6 Command Die for each of his active elements. An element is defined as any unit on the table including combat and non-combat vehicles. Artillery with a FOO get 1 Command Die not 2. Where an infantry platoon has an attached CSW, the whole element only gets 1 x D6.

In some circumstances it could be beneficial to regard a number of vehicles as 1 element (a convoy of soft-skinned trucks for example). They will be allocated 1D6 Command Die and will act together.

Each player sorts his Command Dice into piles of 3 dice. For every complete pile of 3 dice, he gets 1 extra D6 Command Die.
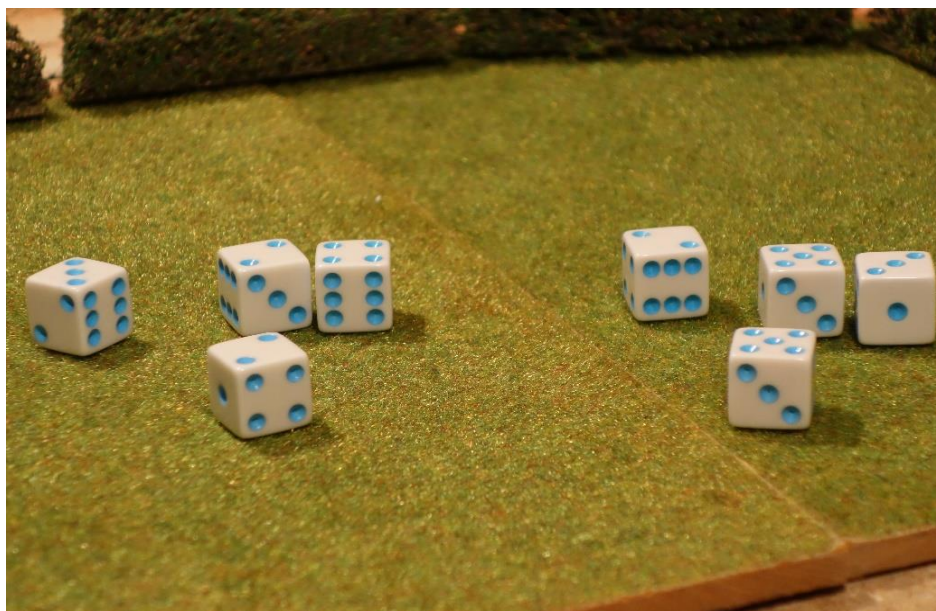
The British player has 6 elements so he gets 6 Command Dice plus 2 more for the 2 complete piles of 3 dice

At the start of each bound, each player throws 1 x D6. The player with the highest score goes first.

The first player throws all of his D6 Command Dice. Each die gives an action that one of his elements may undertake during this bound.

1   The element may fire some or all of its weapons

2   The element may move up to maximum distance shown in the Heroes All rules. If a squad has an attached CSW, they move together. "At The Double" moves are NOT available.

3   The element may observe using the Heroes All rules

4   The element may undertake an "Act" -
　　　　　get out of a concealed position
　　　　　get into/out of a vehicle
　　　　　set up/break down an immobile CSW
　　　　　enter/leave a building
　　　　　aim a shot to improve its chances of a hit
　　　　　change target (artillery)/rotate turret (AFV)
　　　　　go onto/come out of an Overwatch state.
　　　　　be "re-faced" if acting as a Guard
　　　　　undertake engineering duties

5   The element communicates with other elements on the table

6   Can be used for any of the above **or** to re-roll a failed morale throw for an element he wishes to activate on this bound.

The actions can be played in whatever order the player wishes and one element can use up to **3 Command Dice per bound**.

An element can use a "1" to fire and if successful, then be given another "1" to fire again i.e. it does not need to be allocated two "1's" initially. This also applies to movement or observation etc.

Not all Command Dice have to used each bound. Any unused dice are simply discarded.

The British player throws his Command dice and sorts them out. 2 x Fire, 2 x Move, 1 x Observe, 2 x Acts and 1 x "free" or Rally or Re-roll.

Each bound, on the first occasion that an action is allocated to an element, it's NCO must pass an **Officer Reaction Test**. Throw a D10 and refer to the table below;

Officer rating	No action	Acts as ordered	Seizes the initiative
Weak (0)	1 to 4	5 to 10	n/a
Cautious (1)	1 to 3	4 to 9	10
Regular (2)	1 or 2	3 to 8	9 or 10
Bold (3)	1	2 to 7	8 to 10
Inspirational (4)	n/a	1 to 6	7 to 10

An element that "Seizes the initiative" can re-roll one Command Dice.

When the first player has used all of his Command Dice (or as many as he wishes), the second player then throws his Command Dice and carries out his turn. One turn by each player constitutes a bound.

Movement modification

Any vehicle noted as "damaged" only moves 1 x D6 inches per bound.

Morale

A simple morale system is used to ensure that the game flows quickly. Morale throws are made by an element when activated by the player trying to give it a Command Dice.

For each casualty sustained, infantry/CSW/engineer/etc elements throw 1D10. If the resultant throw scores a "1" (Elite elements), "1 or 2" (Regular elements) or "1, 2 or 3" (Poor elements), that element is unable to take any action on this bound and cannot be given a Command Dice. Treat independent CSW's and artillery crews as infantry.

AFVs and armoured cars test independently.

For each AFV or armoured car damaged, the element should throw a D10. If the resultant throw scores a "1" (Elite elements), "1 or 2" (Regular elements) or "1, 2 or 3" (Poor elements), that element is unable to take any action on this bound and cannot be given any Command Dice.

For each aircraft driven off, throw 1D6. If the resultant throw is a "1", the element is unable to take any action on this bound and cannot be given a Command Dice.

For each aircraft shot down, throw 1D6. If the resultant throw scores a "1", the Air Command withdraws his machines and they take no further part in the game.

A player may use a "6" thrown as part of his Command Dice to re-roll any of the above rolls if he has scored a "1" for an element he wishes to activate on this bound.

Failed ORT or Morale throws

If a player wishes to allocate a Command Dice to an element but that element then fails it's Officer Reaction test or Morale throw, the Command Dice is lost and cannot be allocated to another element in the force.

NOTE: Rules in red italics only relate to solo games

At any time during the game, a player may allocate a "4" Command Die to an element to place it onto (or remove it from) an **Overwatch** position where it will gain advantages during the Observation phase.

At any time during the game, a Company Officer can pass a Leadership Test and during his Command & Control turn, place an element in his command either onto or out of an Overwatch position where it will gain advantages during the Observation phase.

Overwatch covers a 180 degree arc in the direction that the element is facing. This direction must be made clear on the table.

Guards (when posted) are automatically given Overwatch instructions.

Recce units may go to Overwatch to doubly enhance their observation capability.

Elements on Overwatch cannot **Fire** and only move 50% of the move distance given to them by the Movement Dice.

The FOO team (left) are facing right so they are focussed on anything in front of them in a 180 degree arc. The guard (right) is facing us so he is focussed on anything in a 180 degree arc in front of the building.

Guards

Overwatch instructions mean that guards have limited movement and no firing capability but can observe a 180 degree arc to their front.

Guards are "faced" at the start of the game with a D8 or "Compass" die (N-NE-E-SE-S-SW-W-NW) so that the player knows which arc of visibility they have. A guard can be re-faced during the game by *their NCO passing a Leadership test* /using a "4" Command Dice.

Guards can only move in the direction they're facing up to 50% of the move distance given to them by the Movement Dice. They move and then turn 180 degrees (**in that order**) each bound. They therefore observe either at the start of their movement *(on an Act order)*, the end of their movement *(on a Move order)* or either *(on a Fire order)*.

In reality, this is interpreted as observing forwards and backwards on alternate bounds.

Refer to **Observation** for the special rules relating to guard dogs.

A guard on Overwatch gets enhanced observation ability which can be useful against attacks on installations at night.

Cover

The availability of cover for our elements is often a contentious topic amongst gamers and most rules state that types of cover should be agreed at the outset of the game. To aid that process, the following notes are offered as a starting point.

Staying out of sight or seeking protection?

"Cover" is a word used freely in a lot of wargame rules and Heroes All is no exception. However, there is clearly a difference between the cover that is sought to stay out of sight and the cover needed to avoid being shot.

Take, for example, a wooden fence. If you stood behind it you could not be seen but anything firing at you through it is likely to hurt.

Cover for observation

It is assumed that no-one strolls around the battlefield as if they didn't have a care in the World. Soldiers, even poor ones, are trained to move without exposing themselves to fire. Heroes All assumes that infantry and CSW crews will seek some sort of cover that will prevent the enemy from seeing them.

Such cover may be a hedge, long grass or a tree but whatever it is, it will act as a partial line-of-sight blocker for the enemy.

The whole point of an Observation Test is for an observer to see past the cover and spot the enemy beyond.

If the cover provides a total line-of-sight blocker, like a building, then the enemy will not be able to see you as they cannot see through a building.

However, if you are in a truck, they may fire at the truck and you may then take a hit, even if they cannot see you, only the truck.

Cover for protection

Cover for protection falls into 2 categories - **soft** and **hard**.

Soft cover could be a hedge, the canvas of a truck tilt, light woods etc. It does not have be bulletproof - it just prevents your enemy from getting a clear shot at you and therefore might just save your bacon.

Hard cover is just that - a stone wall, a gun shield or even a tank. It prevents the enemy from getting a clear shot at you **and** it stops any shots from hitting you. That does not make you totally immune from danger of course as during the bound you may look over the wall or around the tank. At that moment, you could get hit. As such, whilst hard cover is good for you, it still allows your enemy to ruin your day with a good shot (usually a 6 on a D6).

Out in the **open** is not where you want to be. You make an easy target and anyone firing at you will get the benefit of an easier shot. If you do need to cross open ground, first supress your enemy with fire and rack up their Continuous Momentum tests.

In order to present as small a target as possible, the commander of this Stuart M3 takes a "hull down" position behind a rocky outcrop.
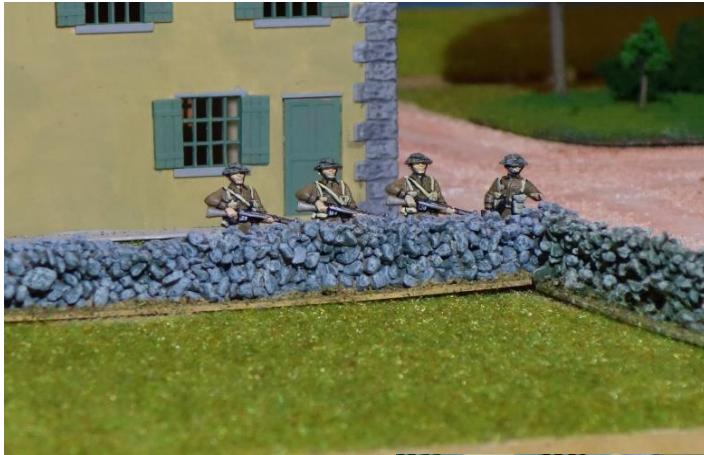
Vehicle cover

Vehicles are treated just like a big figure.

The rules assume that the vehicle is **up to 50%** concealed by the crew who, like our infantryman, will be making sure that they do not present an easy target for enemy gunners.

Tanks will try to conceal as much of themselves as possible whilst still being able to fire. This is known as "hull down" in the tank World and is a vital skill to possess, particularly in places like the desert where the undulations of the ground are the only cover you can find.

Observation

NOTE: Rules in *red italics* only relate to solo games

Observation rules determine whether or not these German infantrymen will spot the approaching British Recce company

Maximum observation range is 60 inches.

Each figure (including CSW crews *and Officers*) counts as 1 observer

 An AFV counts as 1 observer

 Open topped or open platform armour counts as 2 observers

 Lorries/cars/jeeps etc count as 2 observers

 Dogs count as 2 observers

Each target figure counts as 1 target

 A CSW target counts as 1 + the number of crew

 Barricades, road blocks, etc count as 4 targets

 A tankette/jeep/motorcycle/horse counts as 4 targets

 A tank/armoured car/half track/truck counts as 8 targets

 A landing craft/grounded aircraft etc counts as 12 targets

 A building counts as 20 targets, a bridge counts 10.

Aircraft use different observation rules - see Aircraft.

Multiply the number of observers by the number of targets, divide by 10 and round the result up to the nearest whole number. (42 becomes 5, 28 becomes 3).

Throw the resultant number of D6 in an **Observation Test. The maximum number of dice that can be thrown in a test is 5.**

How to work out whether an element can be seen

The score required is expressed in terms of **segments**.

One segment comprises;
      10 inches of distance between the observer and the target
      4 inches of sparse woods, groves etc *****
      2 inches of dense woods, jungle etc *****
      A wall, hedge or similar obstacle that disrupts direct line of sight
      (including a vehicle) up to the height of a figure.
      (Observers ignore any obstacle that they are in contact with.)

* More than 2 inches of dense wood or 4 inches of sparse wood is a sight-blocker as is any wall or solid obstacle higher than the target.

There must be a line of sight between observers and their target.

Extra height allows the observer to gain 1 segment and comprises;
      (i)   1 level of hills (can be multiplied)
      (ii)   a storey of a building (can be multiplied)
      (iii) the turret of an AFV. If an armoured unit is observing, this bonus is only awarded if **all** observers are in turrets.

Observers gain one segment for
      (i)   being on Overwatch
      (ii)   being elite and/or a recognised recce unit
      (iii) observing a target that fired on its last turn/an explosion
      (iv) observing a target that moved on its last turn (but not if it moved with a stealth move)

Observers lose a segment for
      (i)   trying to spot an elite target
      (ii)   *every CMS point below 6 they have*
      (iii) the target occupying an intact building

Observers lose 2 segments for

> (i)   trying to spot concealed troops
>
> (ii)   trying to spot an element that started and ended
> its move out of sight but was visible during the move.

The German infantry (top left) are trying to spot the British Humber Recce Car (bottom right). The distance is 21 inches so that's 3 segments, plus 2 for hedges between them and the target. (They ignore the hedge they are in contact with). A 5 is therefore required. 4 men are spotting and the target counts as 4. That's 16, divided by 10, rounded up to 2 x D6 throws.

If the number of segments is calculated at 1 or less, the observer can see the target without the need for an observation test. The act of observing still counts as an **Act** in the solo game and takes the use of a "4" Command Dice in the 2-player game

A whole element cannot use its 2 Acts to attempt to spot the same target twice but it can attempt to observe 2 different targets.

If the Observation Test score required is above 6, a **super-throw** may be tried. This needs a throw of 6 with a D6 and then the requirement using a D10. (e.g. an 8 can be made with 6 on a D6 and then 8+ on a D10).

Unobserved Autospot

If a target comes into view and would be an "Autospot" for an element wishing to shoot at it, that element need not use an **Act** to observe it **BUT** gets a modifier to its firing dice when the shot is taken.

This allows an element to spot and shoot at opportunity targets on an **Order Dice** of "1" but it will suffer a +1 firing modifier.

Passing on information

An element that has spotted an enemy element can "inform" either their CO using an Act. The CO can then share this information with his other NCOs and his Senior Officer during his Command & Control turn. or
other elements on the table using a "5" Command Dice.

Checking vacated positions

If a previously observed enemy element vacates a building/position without being seen, any approaching force must assume that they are still in place unless they check otherwise.

Throw 1 x D6 per observer (minimum 2 x D6) and score a double to see that the enemy have now vacated.

If this test is failed, the approaching force must continue to act as if the position is occupied by the enemy - firing or assaulting as ordered.

The Recce car now tries to spot the infantry. 21 inches is 3 segments plus 3 hedges makes 6. They get a reduction of 1 for being in an AFV turret and 1 as they are Recce troops so 4+ is required. 1 observer looking at 4 men means one throw but they score a 5 and spot the lurking enemy.

Spotting a potential ambush

It is clear that in a solo game, a player will stop any troops short of an ambush situation even if he has not observed the ambushing element. This is clearly unrealistic as is charging down a road without making any observation attempts.

To counter this, an advancing element must follow its objectives and orders but may not approach to within 9 inches of any enemy held position without taking an observation test using an Act.

If this test is failed, the element must continue to follow orders and objectives and advance closer as dictated by the Movement Dice. It may continue to take observation tests each bound.

In this way, it is possible to keep troops concealed and then spring an ambush on approaching enemy units.

The following notes show the addendum to the original rules, introduced in 2020.

Blinds
These rules do not allow for the use of Blinds or dummy elements. In most 2-player games where quick play is required, the need to spot or observe the enemy is ignored but clearly, if a player is aware of an enemy fire team at a specific location, he may simply avoid that area or route whereas in reality, if he has not observed it, he should not behave as if he knows it's there.

If the fire team is concealed (or simply not observed), the owner could simply elect not to place them on the table but this defeats the observation rules which are written from the persepective of being able to spot known units rather then checking to see if anything is lurking at a certain location.

If dummy markers are employed, they should represent, for observation purposes, the actual models being disguised - a marker that represents a tank would need to be declared as such so that the observation rules can be applied. Immediately, this reveals the nature of the dummy token and a player can avoid it fearing that it may actually be a tank. However, it may **not** be a tank. This uncertainty is an acceptable way of adding confusion and therefore, if required, a dummy token system can be used as below.

For each concealed element on the table at the start of the game, a player can employ up to 3 markers. The markers must be clearly identified to show which element they represent and which of them is the real element. When observed by the enemy, dummy markers are removed from the table. When the real element is revealed, any other dummy markers representing it are also removed.

Elements have to be revealed in order to act, move or fire. When revealed, any dummy markers representing them are removed.

Aircraft
Rules have been amended for bombing HE effects

Forces acting whilst rationed

Each element of the Battlegroup or Fraction with unlimited ammunition can only fire in half the number of bounds shown in the Weapons Codex (round up fractions to the nearest whole). If a weapon has a limited number of shots, the total shown on the Cardsheet is carried forward and not topped back up to the maximum number of shots shown in the weapon codex.

If an element has vehicles and these move, throw 2d6 after the move. A score less than 5 means that the vehicle has run out of petrol and is unable to move further. This counts as light damage for CMS purposes and may result in the vehicle being abandoned. Abandoned vehicles can be destroyed by their owners if the BC passes a Leadership Test.

The loss of vehicles may also affect the Strategic Condition of the force.

Any element capable of an "at the double" move on the game table is unable to execute this whilst in rationed mode.

The requirements for Work and Task dice throws are doubled

In rationed mode all CM tests are doubled. The Battlegroup cannot make any CMS rallying throws although can attempt to rally off any CMS tests that are due.

Weather   If the Rain/Snow Gauge used in FYOW is in use for the game, deduct 1 pip from each Movement dice thrown for any cross-country move **uphill** made by a vehicle that is **not**;

> ➤ tracked
> ➤ half-tracked
> ➤ all wheel drive

Thus ordinary trucks, cars and motorcycle suffer this uphill deduction.

Firing weapons

NOTE: Rules in red italics only relate to solo games

Weapons carried by elements must be defined at the start of the game. Weapon ranges are expressed as **short, effective** and **long**.

Firing teams cannot exceed 10 figures or 3 artillery pieces. AFVs fire separately.

Only observed targets can be fired at **unless** the target is an **unobserved autospot**. See Observation rules (page 20).

The Heroes All CODEX and CODEX Cards give you all the information you need to play the game. This Humber Mk IV has a 2pdr gun (AT class 2 and no HE) and a Tank MG in the turret.

In the following table;

(*) Sub machine guns are allowed to re-roll misses

Note that the number of "shots" allowed per weapon per day indicates the total number of bounds on which that weapon may shoot, not the total shots actually fired.

Weapons table showing ranges, shots, effects and limitations

	Range (S E L)			Shots per bound	Attack Value			HE Effect	
Rifle	12	24	36	1	n/a			n/a	Can move and fire without penalty
Pistol	n/a	3	n/a	1	n/a			n/a	
SMG	n/a	12	n/a	1 (*)	n/a			n/a	
Auto Rifle	12	24	36	2	n/a			n/a	
LMG	18	36	60	3	n/a			n/a	Crewed
Tank MG	24	48	60	4	n/a			n/a	Hull or turret mantle mounted
MMG	24	48	60	4	n/a			n/a	Crewed + Immobile
HMG	24	48	60	4	+4	+1	-3	n/a	Crewed + Immobile
ATR	12	24	n/a	1	+6	+2	n/a	n/a	Can move and fire without penalty
PIAT	3	6	n/a	1	+8	+8	n/a	n/a	
Bazooka	4	9	n/a	1	+8	+8	n/a	n/a	
PzSchreck	4	9	n/a	1	+11	+11	n/a	n/a	
PzFaust	n/a	6	n/a	1	n/a	+11	n/a	n/a	
Class 1 AT gun	12	24	48	1	+8	+5	-3	n/a	Crew served ATGs are "Crewed + Immobile"
Class 2 AT gun	12	24	48	1	+11	+8	+1	n/a	
Class 3 AT gun	24	48	60	1	+14	+11	+3	n/a	
Class 4 AT gun	24	48	60	1	+17	+14	+6	n/a	
Class 5 AT gun	24	48	60	1	+20	+17	+9	n/a	
<=20mm A/cannon	12	24	36	2	+4	+1	-3	A	Crewed + Immobile if ground mounted. HE Range 24/48/60
>20mm A/cannon	15	30	60	2	+8	+5	-3	B	
Light mortar	6 to 24			2	n/a			A	Crewed. Can fire/move without penalty
Med mortar	6 to 48			1	n/a			C	Crewed + Immobile
Heavy mortar	12 to 60			1	n/a			D	Crewed + Immobile
Rockets	24 to table			1 per barrel	n/a			C each	Crewed + Immobile
Howitzer -50mm	24	48	60	1	n/a			B	Crewed + Immobile
51 - 75mm	30	60	table	1	n/a			C	Crewed + Immobile
76 - 104mm	30	60	table	1	n/a			D	Crewed + Immobile
105 - 149mm	30	60	table	1	n/a			E	Crewed + Immobile
150mm+	30	60	table	1	n/a			F	Crewed + Immobile
Manpack Flamethrower	6			1	+3			C	automatic hit
Vehicle Flamethrower	12			1	+4			D	automatic hit
Rifle Grenade Launcher	n/a	12	n/a	1	n/a			A	3 RGL shots per game **or** one use of either AT or HE grenades per platoon
AT grenades	In assault or 3 if thrown			1	+5			n/a	
Hand grenades				1	n/a			G1/G2	

Weapons table notes

Crewed This is a Crew Served Weapon and needs the whole crew to fire at full rate. If it has less than a full crew, throw a D6 for each missing man. **Every** dice thrown must score 3+ for the weapon to fire at full rate on this bound. If not, weapons allowed 1 shot cannot fire and weapons allowed 2 or more shots fire once only.

Immobile This weapon takes time to set up and break down. It therefore requires an "act" to break down and set up. It cannot set up and fire in the same turn.

How to fire weapons

Firing (i) Small Arms or (ii) AT over open sights (weapons coloured yellow above).

For each "shot", throw a d6 modified as below.

+1 short range   -1 firing on the move

-1 for long range   -1 target moving

+1 for a 2nd shot at a stationary target from the same position

+1 when firing AT/HE on an ACT order (using the ACT as "aim")

+2 if the target is a bridge   +1 if firer is elite/veteran

+3 if the target is a building   -1 if firer is Poor/Militia

+1 if (any) target is in the open

-1 if the target is an AFV showing less than 50% of itself

-1 if the target is infantry/a CSW/artillery and is in hard cover

-1 if the target is infantry/ a CSW in a pillbox

+1 if the target is unobserved but would be an autospot

A result of 5 or more scores a hit

Artillery firing HE over open sights (weapons coloured dark green above)

For each shot, use the Firing Over Open Sights Rules above but only consider modifiers for **cover** and **movement**.

Indirect Fire (all weapons coloured light/dark green above)

Weapon crews can either spot their own targets or rely on spotters. They cannot fire if they are more than 3 inches into a wood.

4+ on a D6 scores a hit (light mortars and smoke shells only)

5+ on a D6 scores a hit (Other mortars, HE fire and rockets)

(deduct 1 from the D6 score if the target moved more than 3 inches on this bound)

For each subsequent shot at the same **static** target, +1 to the die. A third shot gets +2 and a fourth +3 etc. This includes the second shot on each bound for a weapon able to fire twice.

If a hit is achieved, 2+ is required on all subsequent mortar/HE shots. If the target moves 3 inches or less **or** if shots are "walked" 3 inches or less then a 3+ hits.

Note that when firing **Rocket launchers**, they require a **5+ on a D6** to hit for **every shot fired**.

"Table" in the range column means that the weapon fires at anything on the table at long range.

Flame weapons (weapons coloured pink above)

These are an automatic hit if fired within range. Use the Attack Value against armour/softs and the HE effect against infantry and buildings etc. Buildings automatically catch fire when hit.

Grenades (weapons coloured blue above)

A Rifle Grenade Launcher is fired as per a light mortar.

AT and HE grenades are covered in the section on assaults.

Effects of hits

Infantry - a hit on an infantry element represents 1 casualty which is removed from the game.

Crew served weapons - when all of a CSW crew is lost, the CSW removed from the game.

AT guns firing at armour/softs

Determine the location of the hit (front/side/rear) by taking a line from corner to corner of the vehicle and seeing which quadrant the firer can see.

The **Firing** table assumes that the AFV is up to 50% obscured.

When a hit is scored, throw a D10 and add the **Attack Value** for the weapon firing. Refer to the **Defence Value** of the target (see below) for the area hit to determine the effect.

Mark the target's Cardsheet with any damage caused and note the Momentum Tests now due for the target as a result of the shot.

Defence values of armoured vehicles (against AT fire or Assault)

Armour	Hit on front		Assaulted or hit on side, bottom or top		Hit on rear	
	Brew	Damage	Brew	Damage	Brew	Damage
Soft-skinned vehicle	2	auto	2	auto	2	auto
Flimsy	11	9	7	5	5	auto
Light	14	11	10	8	8	6
Medium	17	15	13	11	11	9
Heavy	20	18	16	14	14	12
Formidable	23	21	19	17	17	15

If the vehicle is brewed, throw a d6 **and deduct 2** for crew casualties.

Any vehicle damaged twice is brewed.
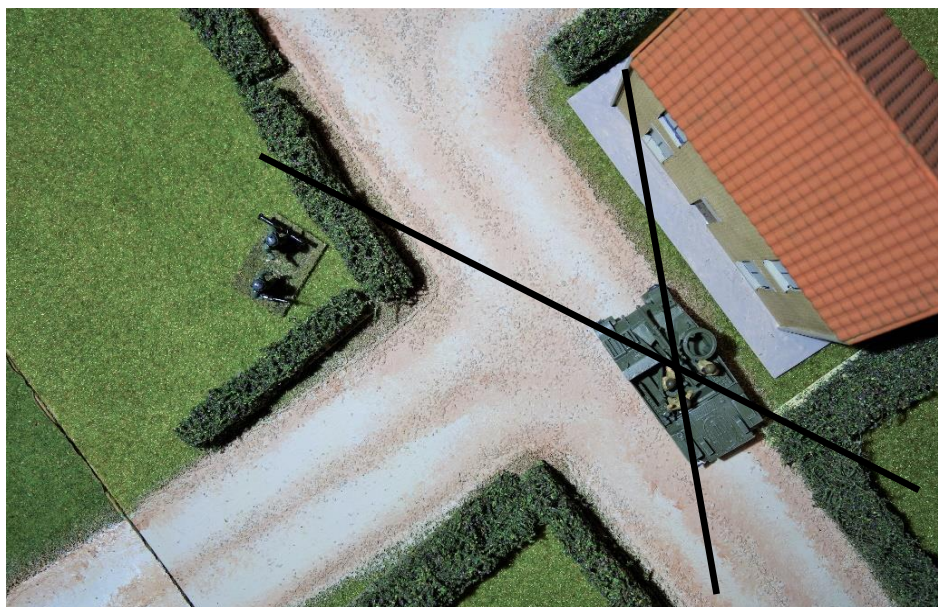
The Panzerschrecke team fire at the American Priest. Dividing the vehicle into quarters will determine whether the hit is on the front or side armour. In this case, any hit will be on the side of the vehicle.

HE Effects Table

When a hit is achieved with HE or mortar fire, throw a D6 and refer to the **Weapons table** above to get the HE effect of the weapon firing. The table below gives the number of casualties inflicted.

HE Effect/D6	1	2	3	4	5	6
A		1	1	1	1	1
B		1	1	1	1	2
C		1	1	2	2	2
D		1	2	2	2	3
E	1	2	2	2	3	3
F	1	2	2	3	3	4
G1	1	2	3			
G2	1	2				

HE or mortar fire hits on artillery or Crew Served Weapons

If a hit results in any casualties inflicted on artillery or CSW crew member, throw a D6. **4+** destroys the weapon.

Howitzers and mortar hits on Open-topped AFVs

If a hit is achieved from HE/mortar fire, reduce the **HE Effects** table result by 1 to reflect the armour of the vehicle. If casualties are still inflicted on the vehicle crew, throw a D6. A score of 6 damages the vehicle.

Howitzers and mortar hits on AFVs and other armour

If a hit is achieved from HE or mortar fire and **more than 1 casualty** is indicated on the **HE Effects** table, throw a D6. A score of 6 (up to 149mm) or 5+ (150mm+) damages the vehicle.

This Wespe (105mm Howitzer) has scored a 6 to get a hit (purple die). The 105mm gun refers to Row E for HE effect. The yellow die shows a 2 so it has inflicted 2 casualties on the enemy.

Small arms, mortar or HE fire against soft-skinned vehicles

When a "hit" is achieved against a soft skinned vehicle, refer to the **Defence Values of Armoured Vehicles** chart to see if the hit brews the vehicle (damage is automatic).
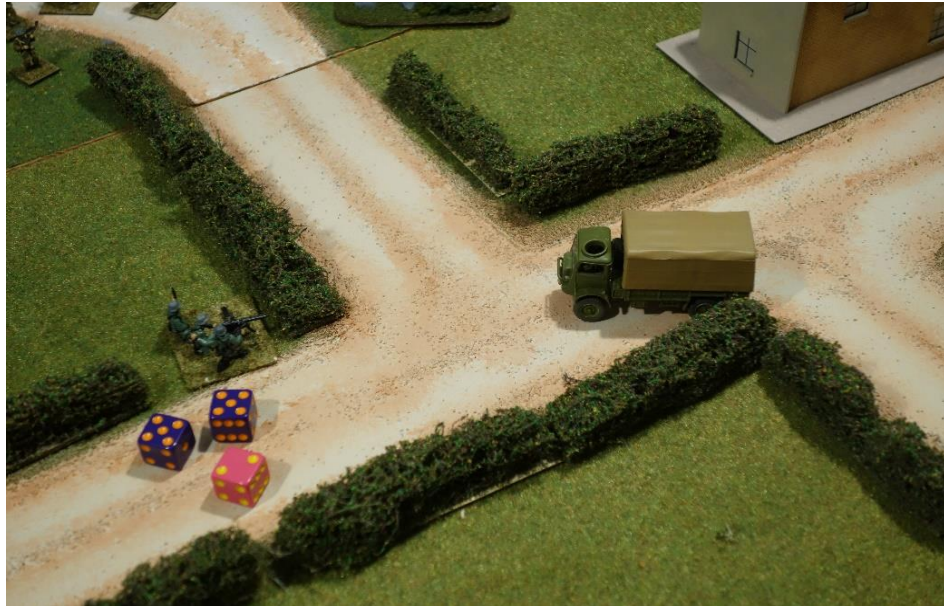
If the vehicle is brewed, throw a d6 **and deduct 2** for crew casualties.

Petard type mortars

These heavy mortars are normally fitted to AFV's. They may **only** target buildings and bunkers etc.

Range is 6 inches. A hit is scored with 2+ on a D6.

HE effect is determined by referring to the Effects Table column F **with the resultant number of casualties doubled.** This will mean that casualties are quadrupled by the "hits on buildings" rule.

Goliath

German "remote controlled" mini-tanks can be fielded with 2 Elite figures as controllers. Range from the start point is 24 inches.

The Goliath and the crew are fielded as an element with a CM score of 6. The NCO is rated as usual.

Movement is D6 inches per bound. Throw an additional D6 per bound. On a 1 or 2 and the machine breaks down and is removed from the table with the crew. *The CMT is reduced by their CM score.*

It is detonated at will with the effect of Attack Value **+11** or by reference to the HE Effects Table column F **with the resultant number of casualties doubled.**

Firing smoke

A smoke round counts as one round of the guns allocation.

Pick the target for the smoke and fire as usual **with a +2** hit modifier on the D6. If a hit is obtained, place 3 x 1 inch smokeballs on this spot for 2 bounds.

The effect of Supply on firing weapons

In a normal game, or in a campaign scenario where the forces are fully supplied, the number of rounds that can be fired by each weapon type is shown in the **Weapons Codex**. This figure represents the number of bounds that the weapon can fire in, **not** the number of shots it can take.

When the scenario or campaign situation dictates that the force is "Rationed", the number of rounds shown in the **Weapons Codex** is halved (rounded up).

Rifle grenade launchers and hand grenades are not available for use if the force is "rationed".

Weapons with "unlimited" ammunition can only fire if they avoid throwing a 1 or 2 on a D6 prior to firing.

<u>Snipers</u>

Some scenarios allow forces to field a sniper figure.

Snipers are elite/veteran (Enhanced) and automatically start the game as concealed. "Placement Options" may be used.

They shoot using the normal rifle rules but only need a **4+** to hit. They ignore the +1 modifier for long range and the +1 modifier for any hard cover on the firing die throw.

Snipers do not need to take any tests after firing to see if they have revealed their location.

Snipers can only move using a **stealth move**.

NOTE: Rules in red italics only relate to solo games

When an element is active and wishes to move, it throws a number of D6 as indicated in the Movement table below. The score shows the maximum number of inches that the element can move this bound.

The number of dice thrown will vary depending on whether the element is on a made-up/metalled road or moving cross-country.

Infantry or mounted cavalry elements may use their 2 actions and their fire phase to make an "at the double" move. No other actions or firing may be undertaken during such a move. The element may move up to twice the distance shown on the D6 throw.

"At the double" moves cannot be taken through light or dense woodland or jungle, nor in areas designated as mountains or swamp, or where infantry movement modifiers apply (see below)

Elements on Overwatch can make a maximum move of 50% of the move allowed to them by the dice throw. *They cannot move "at the double".*

Every type of movement is considered - even infantry wading across a river. Here, a British platoon throws 1 x D6 and gets a 5 so can wade across.

Type		Dice thrown		Notes
		Road	Xcntry	
Infantry		3	2	*"At the double" move available*
Carried CSW	HMtr or HMG	3	2	Reduce each d6 by 1 pip. *"At the double" move available*
Hand moved gun		2	1	
Infantry	Sheer up/down	1		*"At the double" move available*
Infantry	Crawl (open/tunnels)	1	1	*"At the double" move available*
Infantry	Built up/jungle areas	2		
Bicycle	Bicycle	5	1	*"At the double" move available*
Cavalry	Horse tow	5	3	
Cavalry	Mounted	6	5	*"At the double" move available*
M/cycle	Motor cycle	8	4	
M/cycle	MC & sidecar	7	4	
Car	Non military	8	1	
Car	Kubelwagen, Jeep	8	4	
Light truck	Morris C8	8	2	
Med Truck	Opel Blitz, QLT	6	2	
AWD truck		6	4	
Towing vehicle		5	2	
1/2 track	Bren Carrier/SdKfz 251	8	4	
Armoured cars	wheeled	8	3	All AFVs move at 1D6 per bound in built up areas
Slow tank	Matilda II	3	2	
Tank		5	3	
Fast tank	Luchs	6	3	
Goliath	Remote controlled	1	1	1D6 per bound for reliability
Engineers	Bulldozer	3	3	
In water	wading troops		1	
In water	Improvised/paddled raft		2	
In water	"Swimming" tank		1	
In water	Powered boat		5	
In water	MTB etc		8	
In water	Schwimmwagen		3	
In water	Vehicle ferry		3	

Movement Table - how many D6 inches can an element move?

Instead of a "normal" move, an **infantry** element may make a "stealth" move of up to 1D6 inches (2D6 inches for elite) on either a road or cross-country **only**. Pip reductions on dice for carried CSWs still apply as above.

Move distance modifiers

Low walls*, hedges, light woodland, rough ground, ditches etc **for all elements**	No penalty
High walls*, streams, marsh/swamp, dense woodland **for non vehicles**	-1 pip per dice
As above **for vehicles**	-2 pips per dice

* Low = up to the height of a figure, **High** = higher than a figure (up to a maximum of 1 1/2 figure height)

Wheeled or tracked vehicles are considered to be moving at the start of a bound if they finished their previous bound moving. (Similarly for being stationary). If they miss a bound following a failed ORT, this does not change their moving/stationary attitude. The counters on the Activity Sheet should be consulted as a guide.

Tracked vehicles passing over areas designated as "rough ground" throw 1D6 per movement. A 1 indicates a lost track and "damage".

Areas of the table can be "no-go" areas for certain vehicles.
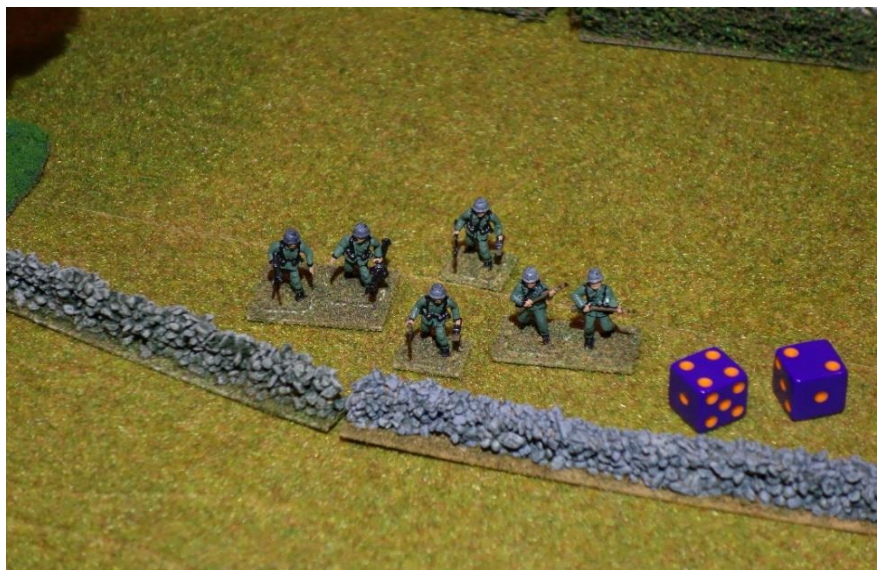
This low wall (less than the height of a figure) presents no problems to the infantry who do not suffer a penalty to cross it. They can move their full 6 inches on this bound.

Movement modification

Any vehicle noted as "damaged" only moves 1 x D6 inches per bound.

If the Rain/Snow Gauge used in FYOW is in use for the game, deduct 1 pip from each Movement dice thrown for any cross-country move **uphill** made by a vehicle that is **not**;

- tracked
- half-tracked
- all wheel drive

Thus ordinary trucks, cars and motorcycle suffer this uphill deduction.

Cavalry

Mounted cavalry may make a move "at the double".

*Mounting or dismounting is an **Act.***

Horse towed guns move as indicated. Unlimbering or limbering the gun is an *Act in the solo game* or use a "4" Command Dice in the 2-player game.

Unmounted horses can remain on the table and do not have to be supervised by a figure.

NOTE: Rules in red italics only relate to solo games

Any assault takes place in a Fire phase and therefore the attackers must throw a Move or Act order if they need to move into contact before commencing the assault.

1-on-1 attacks

A single attacker can make a 1-on-1 attack on a single defender/guard.

The attacker can make a "stealth" move (see **Movement**) towards the defender/guard.

The attacker throws a D6 and successfully assaults with a score of **3+**.
> Elite troops **add 1** to their throw.
> Poor/Militia troops **deduct 1** from their throw

If the attack is unsuccessful, the defender/guard can fight back and beat the attacker with a throw of **4+** on a D6 (unmodified). In all cases where the attack is unsuccessful, the defender/guard alerts friendly troops within 12 inches on a D6 throw of **2+**.

If the defender does not win, the fight continues until resolved.

After a successful attack, the attacker can remain at the position of the attack (providing he retains cohesion) or he can return to his original starting position.

Close assaults (into buildings or defensive positions)

On their turn, the attackers move into contact with the building or defensive position. CSW crews cannot be involved with assaults.

The maximum capacity of a building cannot be exceeded, even in assault.

For every 3 figures attacking, they throw 1 grenade. Throw 1D6 per grenade. Refer to HE Effects Table column G1 for casualties.

Italians throwing grenades use HE Effects Table column G2.

A platoon is only allowed to throw grenades once during the game day.

The attackers now fire from inside the building, noting that they get the benefit of close range but that the defenders are in hard cover. Hits, casualties and Continuous Momentum Tests are calculated.

If the attackers take their next bound before the defenders, they may fire again (without grenades) **or** withdraw away from the building.

When they are able to take action, the defenders must pass their CM Tests before returning fire (which may be modified by their CM score).

If, after taking their CM Tests, the defenders are not permitted to take offensive action, they must retire away from the enemy 1 full move. This full move retirement is mandatory and is the only action permitted by the defenders if they fail their Officer Reaction Test.

They may move "at the double" voluntarily if this allows them to take cover.

If the defenders can fire back, the attackers will benefit from hard cover.

Hits and casualties are calculated against the attackers.

Note the Continuous Momentum Tests due to the attackers as a result of the firing.

If the results of the Continuous Momentum tests do not dictate that either force has to withdraw, a second round of assault may take place.

On the second or subsequent round of assault, both elements fire at close range with the appropriate cover modifiers until one side is forced to withdraw *or withdraws voluntarily (i.e. it's NCO passes a Leadership Test).*

British infantry assault the occupants of this farm building. The 7 figures will get 2 grenades to throw before entering and firing at short range at the defenders who will gain the benefit of hard cover.

Coming up short

If an element decides to make an assault but then throws less than the required distance to make contact with the enemy, the assault is cancelled and the advancing troops may fire from their final position. They may not throw grenades and will not gain any cover benefits from the building if the defenders fire back.

Assaults on AFVs and other vehicles

Infantry elements may use their allocation of grenades to assault a tank or open-topped AFV.

A tank or open-topped AFV that is making an "at the double" move or a vehicle carrying tank-riders cannot be assaulted.

A tank or open-topped AFV can be assaulted by infantry if, during its bound, it passes within 1 inch of a building they are occupying. Note that if the infantry are unobserved, the vehicle cannot deliberately stop short of the building to avoid a potential assault.

The attackers move up to touching distance of the AFV to signify an assault or declare an assault from a building.

Infantry moving to assault an AFV are allowed to split their movement into two parts - up to the tank and away from the tank provided that the total distance moved does not exceed the total allowed to them by a **stealth** move. This is this **only occasion** when an element may move twice during a turn with other activity between the moves.

Against closed AFV's and using **AT** grenades, they throw a D10 per 3 figures with an attack value of **+5**. Multiple Attack Values can be added together - use the **Defence Values of Armoured Vehicles** table to determine the outcome of the attack.

Against open-topped AFV's and using **HE** grenades, they throw a D6 per 3 figures and refer to the HE Effects Table (G1 or G2). Casualties are taken against the crew. The vehicle is brewed with **5+** on a D6.

Against soft-skinned targets and using HE grenades, they throw a D6 per 3 figures and refer to the HE Effects Table (G1 or G2). The vehicle is automatically destroyed and any casualties accrue against the passengers.

These 2 Germans cannot assault the tank using AT grenades as 3 figures are required.

Night Fighting

NOTE: Rules in red italics only relate to solo games

Observation

During the night bounds, observation is undertaken as normal but add
4 segments to the required total **unless** the target element fired on
its last turn when they are observed using normal criteria.

Ground troops spotting aircraft at night require a 3+ for all levels.

Movement

During night bounds, throw the dice as directed by the Movement
Table but halve all of the scores achieved. Round fractions downwards.

"At the double" moves are not permitted.

Elite and **Partisan** troops can ignore the above restrictions.

Firing weapons

All weapons can be fired as usual

Snipers cannot operate.

Explosives

Mine clearing teams/AFVs require an accumulated total of 14 to clear
a minefield.

Explosives

NOTE: Rules in red italics only relate to solo games

Setting a charge requires a figure to be in contact with the target for 1 bound using *both Acts* /a "4" Command Dice without carrying out any other activity.

Bangalore Torpedoes are set using *2 Acts* /a "4" Command Dice and affect wire/obstacles 2 inches in front of the user. They explode on the bound they are set.

Small or large charges can be set for delayed detonation - up to 3 bounds for a small charge and up to 10 bounds for a large charge.

Large charges are detonated using the Detonation Pack. The firer must be within 12 inches of and in sight of the charge. A throw of **2+** on a D6 triggers the charge. A failure means that the charge is dead.

Small charges and Bangalore Torpedoes do not need a detonation pack.

Refer to the HE Effects Table column F for the effect of the explosion for a **large charge**.
Refer to the HE Effects Table column D for the effect of the explosion for a **small charge**.
Bangalore Torpedoes create a gap in wire or walling 1 figure wide.

When a large charge detonates, troops within a D6 inches "stun" zone accrue Momentum Tests as if they were under artillery/mortar fire.

When a small charge detonates, troops within a D4 inches "stun" zone accrue Momentum tests as if they were under artillery/mortar fire.

Small/large charges can be laid together to increase the damage potential. Dice for the effect of each charge when detonated.

On the bound when the charge detonates, troops within the "stun" zone can be observed as if it were daylight with no weather effects.

Bangalore Torpedoes do not have a "stun" effect nor do they endanger the user.

Small charges can be used for "mouse-holing". Treat them as Bangalore Torpedoes.

Charges set for delayed detonation can be detected by observers.

Count a charge as 1 target figure when determining the number of dice to throw. A score of 6 is required to spot the charges.

Mines

Mines are laid in areas of 4 inches x 4 inches (including beaches) **or** along a 6-inch stretch of road. They must be specified as **Anti-tank** or **Anti-personnel**.

Minefields are cleared by a specialist AFV, 2 sappers or 4 infantrymen.

Each bound, throw 2 x D10 for the AFV, 1 x D10 for the sappers or 1 x D6 for the infantrymen. The minefield is cleared when they have accumulated a score of 10. (During Night Fighting this score needs to be 14).

If only 1 sapper or 2 infantrymen are working, halve the dice throw rounding down odd numbers thrown.

Specialist AFV's and all figures undertake no any other action whilst they are clearing the minefield. The element must pass an ORT *but the Order Die is not thrown.*

Minefields can be cleared by artillery fire - treat the target as a bridge when determining whether a hit has been achieved. The minefield is clear when a total of 4 "casualties" have been achieved against it.

Infantry entering an anti-personnel minefield throw 1D6 per figure. A result of 1 or 2 results in a casualty. This does not clear the minefield.

Any AFV (with light or better armour) entering an anti-tank minefield throws a D6 per move. A 2 damages it and a 1 destroys it.

Any AFV with flimsy armour or a soft-skinned vehicle entering an anti-tank minefield throws a D6 per move. A 1, 2 or 3 destroys it.

A vehicle entering an anti-personnel minefield throws 2 x D6 per bound. A double score damages the vehicle.

Minefields are useful defensive weapons but can be countered by specialist vehicles like this Sherman Flail.

Want to play a small game tonight but can't get an opponent?

Why not play solo? Simply ignore the 2-player Command & Control section of Heroes All and use the mechanisms in Fight Your Own Battles.

All the other rules are the same so you know how to play already!

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Loads and carrying capacity

Each vehicle, boat or aircraft has a capacity rating which represents the maximum load that can be carried. All weapons etc are expressed as being a certain weight/size in "loads".

A figure can carry his own personal weapon, any grenades, binoculars, flare gun, food/ammo ration etc as part of his personal kit and this is not counted as a load. In addition a figure may carry 1 load.

When a figure is being transported, he is counted as 1 load and any other equipment that he is carrying (listed below) is counted in addition. Therefore a man with a large explosive charge is counted as 2 loads.

The following items are shown with their load sizes;

A figure	1	
Small explosive charge	1/2	
Large explosive charge	1	
Large explosive detonation pack	1/2	
Mine detector equipment	1	
1 inch x 1 inch mine coverage	1	
Tools for engineers/construction	1	
Radio	1	
Man pack flamethrower	1	
Hand held AT weapon	1	
Mortar up to 50mm	2	}
Mortar up to 81mm	3	} be guided by the number
Mortar over 81mm	4	} of crew members
Light Machine gun	1	} required. Includes ammo
Medium machine gun	2	}
Heavy machine gun	3	}
Parachute	free	

Carriage capacity

The following vehicle/carriers have the capacity as stated (ignore crew figures in boats, trucks, cars etc).

Horse	2
Canoe (2 man)	4
Rubber boats (generic)	8
Assault Boat/Goatley boat etc	10
Bicycle	2
Motorcycle	3
Civilian car	4
Motorcycle/sidecar, Kettenkrad etc	5
Horse drawn cart	6
Universal carrier, jeep	7
Kubelwagen, car etc	5
Specialist/radio truck/prime mover for artillery	8
Service truck	12
Light tank (up to Pz II, Vickers, A10 etc)	4
Other tanks (all others)	6
Transport aircraft/tank-carrying glider	32
Glider (to mid 1942)	10
Glider (after mid 1942)	16
Landing Craft Assault (LCA)	16
Landing Craft Vehicle Personnel (LCVP)	16
Landing Craft Mechanised (LCM) Mk I	60
Landing Craft Mechanised (LCM) Mk II	100
DUKW	30
LVT	30
LVT Mk IV	36
LCT - 4	180

Note capacities are expressed as totals - e.g. the DUKW had a capacity of 24 men but allowance has been made here for their equipment etc

Load spaces occupied by vehicles etc

The following list indicates the space taken up by various vehicles and equipment when being transported by landing craft, truck etc. Note that sense should prevail when considering what vehicle can accommodate which load. These values acknowledge size **and** weight.

Canoe	2
Rubber boat/assault boat	4
Bicycle	1
Motorcycle	3
Motorcycle sidecar/Kettenkrad	5
Horse	4
Horse drawn cart	6
Jeep/Kubelwagen/car/carrier	8
(for trailer added to the above)	4
Artillery/AA piece	6
Radio truck/artillery tow	14
Service truck	20
Scout car/armoured transport (M3/M5/SdKfz 251)	20
Light tank	30
Most AFVs/SPGs	45
Heavy tanks and SPGs	60
AVRE	60

This late war glider has a carrying capacity of 16 loads so can easily deal with 8 figures (8 loads), the PIAT and ammo (4 loads) and the 2 small charges that these men are carrying (1 load).

NOTE: Rules in red italics only relate to solo games

Engineers are rated as Poor for firing and Continuous Momentum Tests. CM Tests will accrue against them if they come under fire.

Mine-clearing

Refer to the "Mines" section in Explosives.

Repairing roads and bridges

During the course of a game, major repairs are unlikely but engineers can mend roads and bridges. Engineers must not undertake any other action whilst they are working. The element must pass an ORT but the Order Die is not thrown.

2 engineers working on a road throw a D10 per bound. 4 infantrymen can also mend roads, throwing a D6 per bound. 1 point of damage is repaired when they have an accumulated score of 6.

Pontoon bridges

A temporary/pontoon bridge is erected by up to 6 engineers/soldiers.

Engineers and other troops working on the bridge cannot carry out any other actions during the construction. If they do, they forfeit their dice throw for that bound.

Having moved up to the bank of the river, the crew throw 1D6 per engineer (up to a maximum of 6) per bound and will have assembled the bridge when they have an accumulated score of 60. Infantrymen can be used instead of engineers but their D6 throw will be halved (odd numbers are rounded down).

The element must pass an ORT on each bound *but the Order Die is not thrown during the engineering work.*
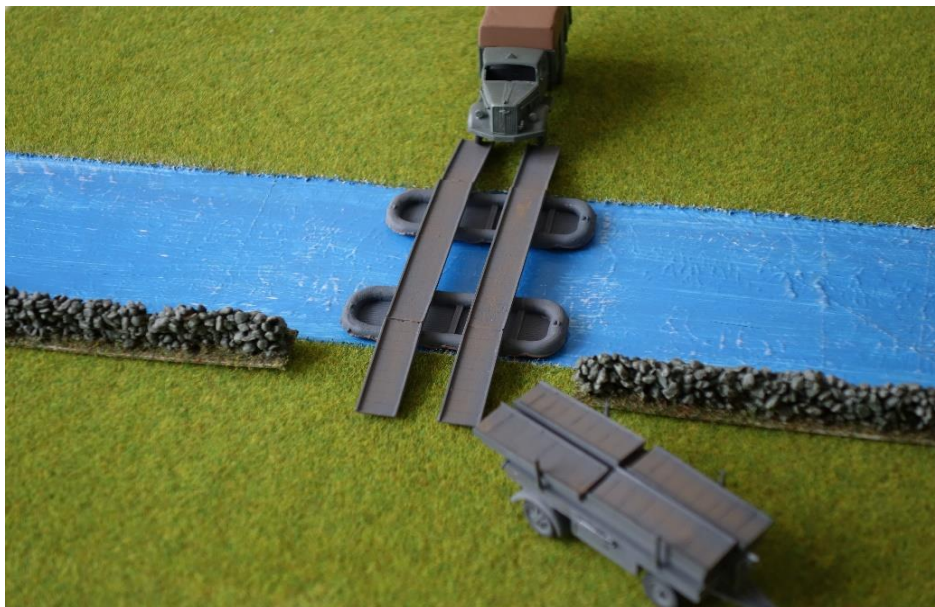
This German pontoon bridge was constructed by a team of 5 engineers. Having moved their trailer (bottom right) to the river's edge, they threw 5D6 per bound until they had accumulated a score of 60. This signified that the bridge was complete and the trucks could begin to cross.

Bridge-laying or fascine-laying tanks

This type of vehicle uses *its **Act**/a* "4" Command Dice to undertake its task. The element must pass an ORT on each bound *but the Order Die is not thrown.*

Each bound, it throws a D10 and completes its task when it has an accumulated score of 6.

Paratroops and Gliders

NOTE: Rules in *red italics* only relate to solo games

Paratroops

The process of jumping from their transport, descending, landing and removing their parachute uses an **Act** /a "4" Command Dice.

The Order Dice will determine what other activity can be carried out after landing.

If, for example, the Order Dice shows a 2 (Move Order) then the ACT (of jumping) is undertaken first leaving just another act and a fire phase to execute.

The optimum Order Dice throw for paratroops is therefore a 3 (Act) so that they jump, act, move and fire. A throw of 1 or 2 will mean that they will not become fully effective until the bound after they jump.

Early in the war, German paratroops descended unarmed - weapons were dropped in separate containers. *They will require a Move order to get to the containers.* Collecting weapons is automatic.

After 1942 (and all other nations), they carry personal weapons and can fire/move on the bound that they land as normal.

Fire is permitted against gliders or paratroopers before they land. Treat gliders under AA fire rules and paratroops as infantry. Only infantry or machine guns may fire at paratroops - treat them as being in the open. Range is measured to the landing grid edge (see below).

Paratroops and gliders in flight are observed as infantry or vehicles respectively moving in the open, 2 segments further away than the ground distance.

Landing process

Paratroop landing is determined using a 12 inch x 12 inch grid divided into nine 4 inch x 4 inch squares. The squares are numbered 1 to 9.

Lay the grid over the proposed landing site. Adjustments can be made to the position if wind and weather factors dictate. Throw a D10 for each platoon of soldiers parachuting. Officer elements must be attached to a platoon in the normal way.

Artillery pieces or vehicles parachuted in are diced for separately.

Elements land in the square as determined by the D10 throw. A "0" means that the element has been blown off course and will not take any further part in the game. *(This **may** result in "CO is a casualty" and **will** affect the CMT for the force).* Weapons containers can be lost. Unarmed elements are removed from the game.

*The NCO will need to gather his forces and so a **Leadership Test** is taken on landing to establish cohesion for the platoon. The platoon cannot function until this test is passed.*

Gliders

Gliders can be subjected to AA fire before landing and are treated as soft-skinned vehicles once landed.

Gliders land automatically on their pre-described turn when activated by the **OPC of their occupants**. *On landing, the passengers throw the Order Dice and are directed by this.*

Troops who stay inside their glider may claim soft cover if fired upon.

Landing process

Gliders are deemed to be over the table at low level at the start of the bound on which they land and may therefore be fired at.

Identify where on the table where the glider is to land. Adjust this position if wind and weather factors dictate.

When gliders land, throw 1 x D6. A score of 1 indicates damage. Throw a further D6 if damage occurs - the score shows the number of casualties sustained. A final throw is made for any CSW's on board. A 6 destroys any crew served weapons.

This Horsa glider kit makes a fantastic centre-piece for an airborne assault but it's length and wingspan mean that you will need a fairly big table if you are planning to use several of them in 20mm scale!

Buildings

NOTE: Rules in *red italics* *only relate to solo games*

Unless specified before the game, all buildings are deemed to have a capacity of 16 figures **including in assault**. Ignore hand-held weapons.

Buildings may not be occupied by vehicles, artillery or mortars. Mortars may be positioned on a flat roof or within the ruins of a building.

The only AT weapons that may occupy intact buildings are a PIAT, Bazooka, Panzerfaust etc

Hits on buildings & structures

Buildings and structures are allocated "Defence Values", determined at the start of the game. When hit by HE fire (or a thrown grenade **not** during an assault), the building or structure absorbs damage first to the following extent. The building accumulates the effect of damage and when "0" is reached, the building is destroyed.

Structures	
Barbed wire	1 point
Road (to make a crater)	1 point
Wire/road block, "loose" obstacle	1 point
Buildings*	
Wooden hut/barn	2 points
Small stone/brick building	4 points
House, barn etc	4 points
Factory, hotel, church etc	6 points
Pillbox, bunker etc	6 points

* When any **building** is hit, the HE Effect Table values are **doubled** to signify the effect of both the contained blast and the effect of the collapsing structure on the occupants.

When a building is hit, a 6 on a D6 sets it on fire for D3 bounds.

Smoke is created the size of the building for those 3 bounds. If any occupants are unable to evacuate on their next bound they are considered lost. A burning building is destroyed after the fire.

Infantry may not enter the building whilst it is burning.

When destroyed, a road block or wooden building is simply removed.

When any building is destroyed, treat it as a ruin and hard cover. If it contained an emplaced weapon, that is also destroyed.

When a building is destroyed, any "surplus" HE effect impacts on the occupants at the rate of 1 pip = 1 casualty. CSW's are lost with their crews. Mobile artillery is destroyed by 1 pip of HE fire.

This solid-looking house has a capacity of 16 figures and can absorb 4 points of HE before becoming a ruin.

Setting fire to buildings

1 figure may enter a building and stay there for 1 bound to start a fire on *an Act* /a "4" Command Dice without taking any other action.

The fire takes hold next bound on a **2+** throw on a D6. It burns for 3 bounds. Smoke is created the size of the building for those 3 bounds.

Infantry may not enter the building whilst it is burning.

When a stone/brick building burns down, treat it as a ruin and as hard cover.

The Bishop (25pdr gun = 88mm) has thrown a 6 to hit the building. The effects throw yields a 3. Referring to Table D we read 2 hits doubled to 4. The building is now reduced to a ruin and can provide hard cover only.

Bridges

Bridge types are specified at the start of the game and are given a "Defence Value" as shown below. This can be eroded by mortar or artillery HE fire, or HE grenades thrown.

Type A (2 pts)	small wood or iron structures over a small river. Only light vehicles up to the weight of Medium tanks may cross. Includes pontoon/temporary bridges built by engineers. When, as a result of an attack, the bridge value falls to 1, throw 2D6 per bound per vehicle passing over it. A double means it collapses.
Type B (4 pts)	stone or iron structure over a small river. 2pts damage means that no heavy traffic may cross i.e. treat as if it were a Type A
Type C (6 pts)	iron bridge over wide river. 4pts damage means that no heavy traffic may cross i.e. treat it as if it were Type A
Type D (8 pts)	substantial stone or girder bridge over wide river. 5pts damage means that no heavy traffic may cross i.e. treat as if it were a Type A

When the value of the bridge is reduced to **0** it is destroyed.

A typical "Type B" bridge over a small river

Rivers

NOTE: Rules in red italics only relate to solo games

Rivers are classified at the start of the game as one of the following;

Stream   Typically 1 to 2 inches wide.

Can be crossed by all elements subject to a penalty of 1 pip per D6 thrown for movement.

Small river   Typically 3 to 4 inches wide

Can be crossed by infantry wading or by cavalry at 1 x D6 per bound. All other elements must cross using a bridge (type A or B), boat or raft.

Getting into or out of river *counts as an Act* /uses a "4" Command Dice.

This size of river can be bridged by AVRE equipment or a small pontoon bridge.

Only navigable by canoe, rowing boat or raft.

Wide river   Typically wider than 4 inches

Can only be crossed using a bridge (type C or D), boat or raft.

Navigable by MTB (and similar), small ferries, small gunboats or a Schwimmwagen.

Ford   Crossings nominated as fords can be crossed by all elements without a penalty.

Note that in bad weather, movement restriction may occur or the ford can be declared uncrossable.

| Marsh or swamp | Can be crossed by all elements subject to a penalty of 1 pip per D6 thrown for movement (non-vehicular elements) or 2 pips per D6 (all vehicles). |
| | Some areas of the table can be "no-go" areas for some vehicles - mostly deep swamp/marshland which will be unsuitable for heavier tanks etc. The scenario will usually indicate if this is the case. |

These home-made modular scenery boards include a "small" river - about 4 inches wide. Note the road crossing which could be the site of a bridge or a ford.

NOTE: **Rules in** red italics **only relate to solo games**

Aircraft operations, like those of naval forces, are very much an add-on to Heroes All and are not presented in the same depth as the rules for ground-based forces. As such, there is much simplification here with generalisations regarding aircraft types. Types are referred to as "fighter" or "ground attack" - the reader is given some examples of each but can substitute his/her favourites and, where required, expand the rules based on the framework given.

Weapons are described simply as "machine guns" (MMG or HMG), AT cannons, bombs (small, medium or heavy) and torpedoes.

In order to conform with the framework presented in Fight Your Own Wars (the solo campaign mechanism that belongs in this family of rulesets), the full aircraft rules are given below.

Operating heights

There are 3 operating heights for aircraft;

High level Used by long-range, high level strategic bombers and aircraft travelling between airfields and/or targets.

Medium Level Used by light and medium bombers, dive bombers ***** and transport aircraft dropping supplies or paratroops. Interceptor fighters will engage bombers or escort fighters at this height.

Low level Used by ground attack aircraft or torpedo bombers and fighters chasing these.

* Dive bombers operate from medium level but immediately after their attack, they are considered to be at low level.

Aircraft formations and operation

Aircraft normally operate in squadrons of 3 machines. The number of aircraft in a squadron is determined at the start of the game.

Aircraft are permitted to operate over the table in "windows" of 4 bounds. The window for each force may span a different 4 bound period.

The number of aircraft making **ground attacks** over the table at low level in any one bound should be limited and the suggested density is 2 aircraft for every 8 square feet covered by the table. This means that a table 6ft x 4ft (24 square feet) can accommodate 6 aircraft. Any aircraft not able to enter the table are considered in the "box".

Aircraft may not attack each other if they are at different levels.

The CODEX will show the range of aircraft considered in these rules with examples and typical weaponry, strength factors and speed.

At the start of the game, each squadron should be scheduled to appear on a specific bound in the game unless "called in" during the game (see procedure below). *Each aircraft is allocated an Order Priority Card which is added to the deck on the bound that the aircraft arrives. Each aircraft type is controlled by a rated Air Command (CO).*

Light and/or medium bombers can be scheduled for a pre-game bombardment - refer to the rules covering pre-game activity.

To "call in" a ground attack or a Combat Air Patrol, the CO (during his Command turn) must pass a Leadership Test and then throws a D4 which will show the number of bounds delay before the aircraft arrive.

In the 2-player game, a player throws a D4 and waits that number of bounds for the aircraft to arrive.

If the scenario shows that aircraft are allocated as close support to the ground troops, the aircraft arrive on the next bound.

A force must field a Combat Air Patrol in its ORBATS if this option is required. If a CAP is not specified, it will not be available to the ground forces.

When aircraft arrive

When aircraft first arrive on to the table, they are placed on the perimeter of the board along a "friendly" edge. In this position, they are referred to as being in the "box". Aircraft may be mounted on supports of various lengths to signify their operating height if required or a token can be used at the base to show this.

An OPC is added to the pack for each squadron and the Air Command of each force.

Each squadron will have a Squadron Leader NCO who is subject to an ORT *and each squadron will throw its own Order Die when activated by its OPC. If the pilot passes his ORT, the aircraft* **must** *move onto the table automatically* **before** *the Order Die is thrown.*

If the Squadron Leader is shot down or driven off, the second aircraft in the squadron takes over automatically. He may, of course, have a different Officer Rating.

Order Die options

Fire   *The aircraft can (i) bomb a target* **or** *(ii) fire its weapons at other aircraft* **or** *ground targets as appropriate. It may then move off the table and/or try to observe another target. Transport aircraft dropping supplies treat "fire" as "drop".*

Move *If the aircraft is already over the table, it can move back into the "box" to avoid AA fire **or** it can move from one operating height to another. It may then try to observe a target and/or fire its weapons. Aircraft cannot move "at the double"*

Act *Aircraft get 1 act per bound. Providing it is over the table, it can either spot an enemy aircraft or acquire a ground target. It may then move and/or fire its weapons. It can use its **act** to "aim" if it is firing at ground targets (see "Aircraft attacking ground troops" below). **Note** paratroops will drop using their own OPC and not that of the transport aircraft.*

The order of events

*The order in which aircraft arrive over the table, make bombing runs, conduct ground attacks, shoot at each other and are subjected to AA fire is driven solely by the OPC order. This will also determine the point during the bound that the Air Command for the squadron will be activated to share information and take his Continuous Momentum tests. It is entirely possible that aircraft can make an attack and then escape without meeting any AA fire **or** can come onto the table and be subjected to multiple AA volleys.*

Observation

An aircraft at low level must throw 3+ on a D6 to spot a target for a ground attack. This is modified to a 5+ if the ground attack target is in a building or woodland or is camouflaged.

If the aircraft is "called in" to hit a specific target, it only needs to score 2+ on a D6 to correctly identify that target.

Aircraft at medium level trying to spot a target for bombing must throw 4+ on a D6 (5+ if in a building etc as above).

An aircraft trying to spot another aircraft needs to throw 2+ on a D6, modified to a 3+ for light rain and 5+ for heavy rain. **Deduct 1** from the requirement if the target is firing at the spotter.

AA crews and ground troops throw a D6 and refer to the table below;

Fair weather   2+ to spot
Overcast/light rain   3+ to spot
Heavy rain   4+ to spot.

If the aircraft has just made a ground attack, spotting on the same bound is automatic.

Aircraft attacking ground troops

Aircraft attack ground troops with either bombs or machine guns from low level only.

Refer to the Codex for the weapons available for each aircraft type.

Aircraft fire their MMG's with a 1D6 each, HMGs with 2D6 each. Cannons throw 2D6. 5+ hits. Rockets throw 1D6 each and hit on a 5+.

Hits on infantry, CSW and soft-skinned targets are dealt with as if they were hits from a grounded weapon.

Bombs are dropped using **Indirect Fire** rules but **always** need a 6 to hit the target. Dive bombers (Stuka etc) **always** need a 4+ to hit. See "Bomb damage" below if a hit is achieved.

Bomb damage

The CODEX shows how many bombs are dropped per bound for each aircraft type. (Bomb weights given here are for comparison)

Small bombs (up to 100lbs)   HE Effects Table column D
Medium bombs (100-250lbs)   HE Effects Table column F
Heavy bombs (500lbs and over)   HE Effects Table column 3F*

* Throw 3D6 and refer to HE Effects Table column F for each. The effect is the accumulated score.

For hits on buildings, the HE Effects Table scores are doubled.

Anti Tank damage

Where aircraft attack with AT weapons against armoured vehicles, throw a 5+ on a D6 to hit if the target is stationary or 6 if it is moving.

Treat the Attack Value of the AT weapon as **+8**. Defence Values for the top of AFVs is the same as the side armour. Any hit on an open-topped AFV destroys it.

Anti aircraft fire

Different types of AA weapons fire at aircraft at different levels. The table below gives the number of D6 thrown per shot per bound for these different levels. Guns have 2 shots per bound unless stated.

Against low level targets

Infantry (per 3 figures)	2D6 (1 shot only)
LMG (dedicated role)	2D6 (*)
TMG (turret mounted)	2D6 (*)
HMG	3D6 (*)
Multiple HMG (AA)	4D6 (*)

(*) add another D6 if firing at an aircraft that has made a ground attack on this bound.

Against medium level targets

single cannon <40mm	3D6
single cannon 40mm+	3D6

Against high level targets

cannon 40mm+	2D6
cannon 75mm+	3D6

AA fire cannot be conducted at medium level aircraft if air-to-air combat is taking place. Low level AA fire is permitted.

Hits on aircraft with AA fire

Each double thrown scores 1 hit. A "triple" counts as 2 hits, a quadruple is 3 hits and a quintuple is 4 hits.

For every hit, throw a D6 and score 4+ to register damage unless the aircraft is designated "Fast" when a 5+ damages or "Slow" when a 3+ damages.

Each "damage" reduces the strength of the aircraft by 1. Record the strength of the aircraft using a suitable token or scorecard.

When an aircraft has its strength reduced to 0, it throws a D6 and is driven off the table for D4 bounds on the result of 1 or 2. This may mean that the "window" closes before it returns to the table.

An aircraft with a strength of less than 0 is shot down.

If an aircraft with a strength of 0 is damaged again, it is shot down. This is recorded as 1 further damage for Continuous Momentum purposes irrespective of the number of damages taken by the aircraft on that bound.

Air to air combat

Refer to the Aircraft CODEX for the machine's weapons and throw 1D6 per machine gun. AT cannons cannot be used in air-to-air combat.

Each of the opposing squadrons "match-up" aircraft to aircraft. It is not permitted for more than one aircraft to attack a member of the opposing squadron **unless** the attackers outnumber the defenders in which case any surplus attackers after "matching-up" can attack any defender.

If, however, there are. For example, 4 attackers and 2 defenders, they must "match-up" 2-1 twice and cannot "match-up" 1-1 and 3-1.

The following table shows what is required for a hit

	Fast attacker	All other	Slow attacker
Fast target	5+	6	6 then 4+
All other	4+	5+	6
Slow target	3+	4+	5+

The above is **increased** by 1 if the firing aircraft is damaged.

For every hit, throw a D6 and score 3+ to register damage. Each "damage" reduces the strength of the aircraft by 1. Record the strength of the aircraft using a token or record card.

When an aircraft has its strength reduced to 0, it throws a D6 and is driven off the table for D4 bounds on the result of 1 or 2. This may mean that the "window" closes before it returns to the table.

An aircraft with a strength of less than 0 is shot down.

If an aircraft with a strength of 0 is damaged again, it is shot down. This is recorded as 1 further damage for Continuous Momentum purposes irrespective of the number of damages taken by the aircraft on that bound.

Pre-game activity

If a pre-game bombardment is indicated, for each bound of the pre-game activity, use only the OPC's of those aircraft involved (including fighters) plus any active **dedicated** AA elements on the table.

Deal out the OPCs as usual and conduct the pre-game bound in exactly the same way as a game bound but using only the OPCs in hand.

End of the aircraft "window"

If the "window" closes and aircraft are still on the table, they must leave immediately *they are activated by their OPC* on the next bound without taking any further action. *This may mean that they suffer further AA or air-to-air attacks beforehand.*

Continuous Momentum for Aircraft

Aircraft are subjected to their own Continuous Momentum rules.

The Air Command CO starts the game with a Continuous Momentum score which is the total of the **strength** factors of all aircraft. This figure should include all aircraft taking part in pre-game activity.

The Air Command CO gets his own OPC and is activated by this. The OPC allows him to share target information but also obliges him to take any Continuous Momentum tests due since his last activation.

He throws 1D6 for each "damage" suffered since the last activation.

A score of 1, 2 or 3 reduces his Continuous Momentum score by that number. Throws of 4, 5 or 6 are ignored.

When the Continuous Momentum score reaches 0, Air Command will withdraw all of his remaining aircraft from the table.

Aircraft on the ground

If fired at when on the ground, treat an aircraft as a soft-skinned vehicle. They may not use their guns. They may take off (or land) on a **move** order and are then placed in the "box" until activated again.

This Ju52 transport is waiting to take off and will do so on a move order. Whilst it is on the ground, it provides soft cover for its passengers and is treated as a soft-skinned vehicle. It counts as 12 targets when being observed.

Boats

NOTE: Rules in *red italics* *only relate to solo games*

Boats fall into the following categories;

  (i)   river craft
  (ii)   landing craft
  (iii) sea-going craft

River craft

Refer to the movement rules for movement rates of each type of river craft, raft etc.

Getting into a boat *is treated as an* **Act** /uses a "4" Command Dice but when it arrives at its destination, getting out is done *as part of the move phase* /using a "2" Command Dice.

Landing craft

The beach of any proposed landing site is divided into "lanes" 4 inches wide and separated by a "gap" which is also 4 inches wide. Each landing craft occupies a lane and only amphibious tanks/lorries can use the gaps.

A Landing Plan must be prepared showing the initial schedule for landings in each lane and gap. The contents of each landing craft must be included in the plan.

If the scenario indicates that the approaches are mined, each landing craft or amphibious vehicle throws a D6 on **approach**. A score of 1 destroys the craft/vehicle. (see landing sequence below).

Mined areas **on the beach** are treated as normal minefields.

If a lane is blocked by a destroyed craft, the Landing Plan must be adjusted as this lane will no longer be available for use.

Infantry in landing craft are considered to be in Hard Cover.

Landing craft landing sequence

The Order dice is thrown covering all landing craft each bound to determine the order of movement and firing weapons (if any).

Bound 1   Craft are on **approach** to the beach (*move* /"2" order).
Crews of landing craft may observe enemy targets.
Weapons mounted on the landing craft may fire.

Bound 2   Craft **land** on the beach (*move* /"2" order).
Order Dice thrown for the occupants.
A new wave of craft are assembled on **approach.**

Bound 3   First wave of craft **retire** and second wave **land**.
This process continues until all waves have landed.

Home made and kit-built landing craft combine to get this British force ashore

Sea-going craft

Sea-going craft (including sea-going canoes) use the same movement rates as the river craft (if within 12 inches of shore during the game).

Gunboats can give off-shore fire support. Refer to Indirect Firing rules and the effects charts for the calibre of guns firing. Their targets can only be buildings or structures, not troops or vehicles.

Sea-going craft without bow doors require a crane to unload vehicles and equipment. Unloading begins on the bound following arrival at the wharf side. When the ship is activated by its *OPC/* ORT, 1 piece of equipment or 1 vehicle can be unloaded for each crane available.

When unloaded, a vehicle will get an OPC on the next bound. Troops get an OPC for the bound that unloading begins. A maximum of 3 platoons can be unloaded per bound.

Docked ships may not fire their weapons.

Logistics

Although a logistics mechanism is not required for a stand-alone game using Heroes All, if the game is part of a series of games or part of a campaign, the logistical state of the forces will play a part in their effectiveness on the battlefield.

The logistical state of the forces will be determined by
        a) the position dictated by the scenario
        or
        b) the army's logistical position in the campaign

Where the logistical position allows the force to be fully supplied, no movement penalties for logistics are applied and only the normal restrictions on ammunition will apply.

Where the logistical position suggests that the force is in a "rationed" state, restrictions on movement and firing apply as dictated below.

Normal restrictions on ammunition

For each 24 hours of a game day, the following restrictions on ammunition apply (details shown in the CODEX);

Infantry	Unlimited supply (rifle, pistol, SMG, ATR)
	1 use of grenades per day per 3 men of a platoon
	3 bounds of rifle grenade fire
	5 bounds of bazooka, PzSchrecke, PIAT fire
	3 bounds of flamethrower fire
CSW's	10 bounds of LMG fire
	8 bounds of MMG fire
	6 bounds of HMG fire
	10 bounds of light mortar fire
	8 bounds of medium mortar fire
	6 bounds of heavy mortar fire

Artillery   see CODEX for different HE gun calibres
                   3 bounds of rocket fire
                   10 bounds of AA fire

AFV's   see CODEX for different AT gun calibres
                   8 bounds of tank machine gun (TMG) fire

Restrictions applied in "Rationed" state

When the scenario dictates (or in a campaign situation) where the force is "Rationed", the number of rounds shown in the **Weapons Codex** is halved (rounded up).

Rifle grenade launchers and hand grenades are not available for use.

When any vehicle moves, it throws 2D6 after the move and if a double is thrown, it runs out of fuel for the remainder of the day. The vehicle may have to be abandoned by the crew (Continuous Momentum will dictate this). The loss of this vehicle counts as "damage" for CMS purposes.
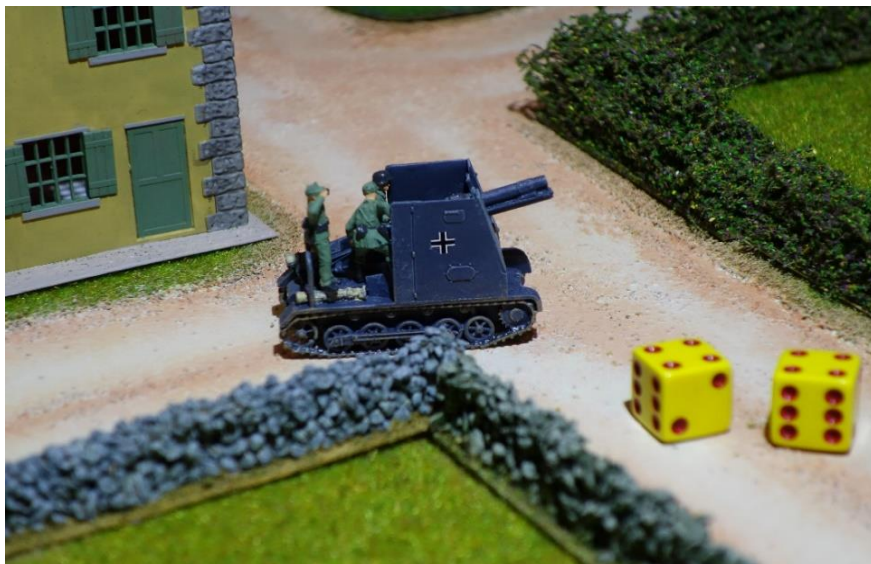
This Panzerjager I is "rationed" and runs out of fuel after moving

Note that all **Continuous Momentum Tests are doubled** when an element is rationed. The element will accrue Tests as usual and apply any reductions due before doubling the final number of tests that it must take.

The following advanced rules for off-table artillery fire can be used by the player at their discretion.

Direct Fire Support

This type of firing is reflected in the Heroes All rules where an off-table gun (or battery of guns) is controlled by an observer - known as a Forward Observation Officer or FOO)

The FOO must use an Act to net-in his radio at the start of the game. See Radio Rules in **Fight Your Own Battles** for this procedure.

In the event that the FOO is a casualty, the Battlegroup Commander (BC) when next activated, can appoint a replacement who must be a CO of an infantry or armoured Company/Squadron. He must net-in his radio as above before off-table firing can re-commence.

When firing from "off-table" positions, artillery batteries are considered to be behind the table edge by the distance given as their "short" range, (e.g. a British 4.5 inch gun with a short range of 45 inches fires from 45 inches behind the baseboard edge. Range measurements are taken from the board edge to the target on the table.

Interdiction Fire

This rule makes use of Artillery Target counters numbered 1-4 and bearing their number on one side and the number with a suitable symbol to suggest "Active" on the reverse side.

The appointed FOO for a battery can, at the start of the game, nominate 2 target points on the table - perhaps a bridge or road junction - which he wishes to deny to the enemy. These points must be marked with Artillery Target counters numbered 1 and 2.

When first activated, the FOO uses both **Acts** to nominate one Artillery Target as being active. The guns under his control will then fire on this target using their **Fire** order.

During the game, the FOO can, when activated, use both of his **Acts** and pass a **Leadership Test** to instruct the guns to switch to another of his Artillery Targets. The new target will be used when the guns use their next **Fire** order.

During the game, the FOO can, when activated, use an **Act** to observe a potential target and, if successful, nominate this as a further Interdiction target. On his next activation, the FOO can use both of his **Acts** and pass a Leadership Test to instruct the guns to switch to the new target.

British FOOs and their batteries do not need to pass a Leadership Test. This reflects the high state of organisation enjoyed by the WW2 British Artillery units.

If required, the FOO can, when activated, select additional Artillery Targets in replacement for those already identified but;

> the total number of Artillery Targets cannot exceed 4
> and
> discarded Artillery Targets cannot be resurrected once abandoned.