

A good wargame must strike a balance -- taking from history without being trapped by it. In GUNS OF AUGUST, the sensation of being trapped is strong. After a brief war of movement, the struggle bogs down and becomes a seemingly endless war of attrition. Eventually one side or the other collapses, and for both the historian and the gamer it may be difficult to explain the outcome.

The rule changes to GUNS OF AUGUST suggested in this article are based on two premises:

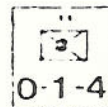
1. Military victory in World War I was possible. The political and military leaders of the warring nations, and the populations which supported them, sought victory and feared defeat. These beliefs, regardless of their objective foundations, led to battles such as Verdun, where France ruined its army rather than surrender a town of doubtful strategic value.

2. The chances for victory in World War I lay with the side which most effectively realized its warring potential. The First World War bridged the gap between the great infantry wars of the nineteenth century and World War II. The First World War fostered a leap upwards in military technology, while the Second World War saw the development of tactics allowing for the most effective use of the new weapons. For example, the two most important weapons of the Second World War, tanks and airplanes, were developed in the First World War.

This article is primarily directed to the application of the new technologies of war during World War I. To simulate the economic, technical and productive strengths of the warring powers, the concept of Economic Points (EPs) will be introduced. These points may be spent on the development of new weapons, strategic warfare, or the construction of static defences. In this way, the players may establish priorities based on their assessment of the strategic requirements of the war.

Also included in this article are several suggested changes and additions to the existing rules. These are indicated, so as to distinguish them from the variant which forms the bulk of the article. It is suggested that the amended Morale Table be used with the variant, as the two are related.

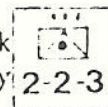
Gas



3.1 Add two new Combat Support Units: Gas and Anti-tank artillery

3.2 Add one new Game Marker: Super-fort

Anti-tank  
artillery



10.1 Stacking limits are expanded to include one gas unit and one anti-tank artillery unit.

17.14 Each fort constructed on the Western Front requires the expenditure of one Economic Point (EP) (see Rule 32.251). Only the German and French fort construction engineers may construct forts on the Western Front.

17.15 The Austrian and Russian fort construction engineers units may construct forts on the Eastern Front at no EP cost. Construction of forts on the Eastern Front by German or French fort construction engineer units requires the expenditure of an EP.

18.11 The Central Powers player may begin using German infantry replacement points to create stostrupen units on the turn of a successful roll on the Weapons Development Chart (WDC) (see Rule 32.0).

19.11 The Central Powers player may begin using German, or the Allied player British, French or American, artillery replacement points to create tanks units on the turn of a successful roll on the Weapons Development Chart (WDC) (see Rule 32.0).

19.13 No more than two German and two Allied tank units may be created per Game-Turn. There is no fixed limit for replacing these units.

20.11 Either the Central Powers player or the Allied player receives air units in accordance with Rule 34.0.

20.12 - 20.15 These rules apply equally to the Central Powers player.

20.16 No more than two air units may operate against any one hex, nor participate in a single attack against enemy units in more than one hex.

#### 20A.0 GAS

World War I saw the use of poison gas on a large scale. Gas was first introduced as an inexpensive, although unpredictable, means of breaking the deadlock brought about by the superiority of the defence in the early stages of the war.

#### 20A.1 How Gas Units Are Created

20A.11 The Central Powers player may begin using German, or the Allied player British, French or American, artillery replacement points to create gas units on the turn of a successful roll on the Weapons Development Chart (WDC) (see Rule 32.0).

20A.12 To create a gas unit requires two artillery replacement points.

20A.13 No more than two German and two Allied gas units may be created per Game-Turn.

#### 20A.2 How Gas Affects Combat

20A.21 When gas is first used in the game, the attacking player rolls a die for each gas unit used in an attack. The combat die roll (see Rule 13.19) is modified according to the following table:

	<u>Gas Table</u>					
Attacker Die Roll	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Modification	+3	+2	+2	+2	+1	-

Note: (a) If the defending player has a gas unit on the board, the die roll modification is reduced by one;

(b) On the turn following the initial use of gas, the same procedure is followed, but the resulting modifications are reduced by one (to a minimum of zero).

20A.22 Gas units may be employed only on the Game-Turn gas is first used and the Game-Turn immediately following.

20A.23 Once one side has made an attack using gas, the other side may not do so.

20A.24 A gas unit used to support an attack is immediately removed from play.

20A.25 Only one gas unit may be used to support an attack.

## 20B.0 ANTI-TANK ARTILLERY

### 20B.1 How Anti-tank Artillery Units Are Created

20B.11 The Central Powers player may begin using German, or the Allied player British, French or American, artillery replacement points to create anti-tank artillery units on the turn of a successful roll on the Weapons Development Chart (WDC) (see Rule 32.0).

20B.12 To create an anti-tank artillery unit requires three artillery replacement points.

20B.13 No more than one German and one Allied anti-tank artillery unit may be created per Game-Turn.

### 20B.2 How Anti-tank Artillery Affects Combat

20B.21 An anti-tank artillery unit neutralizes the combat die roll modification of an enemy attack supported by tank units. This effect applies to any number of enemy tank units, but only with respect to the modification associated with the tank units, and only with respect to the friendly combat units associated with the anti-tank artillery unit (ie., if more than one enemy attack is being made against two or more friendly combat units in the same hex as the anti-tank artillery unit).

20B.21 Anti-tank artillery units may be used to support an attack by friendly combat units, in which case it functions as normal artillery.

23.1 and 23.2 Superseded by Rules 33.1 and 33.2.

### 31.0 ECONOMIC POINTS

Economic Points (EPs) represent the economic, research and development capabilities of the various warring countries.

#### 31.1 Allocation Of EPs

31.11 EPs are allocated as follows:

(a) Germany: September 1914 - December 1915: one EP per Game-Turn

January 1916 - : two EPs per Game-Turn

(b) Britain/France: September 1914 - December 1915: one EP per Game-Turn

January 1916 - : two EPs per Game-Turn

Note: If Paris is controlled by the Central Powers player, this allocation is reduced by half.

(c) United States: First six months of belligerency: none

Next six months of belligerency: half an EP per Game-Turn

Next six months of belligerency: one EP per Game Turn, and so

31.12 Austria, Russia, Italy and minor countries receive no EPs.

#### 31.2 Expenditure of EPs

31.21 EPs must be spent on the turn they are allocated. They may not be accumulated for later expenditure.

31.22 EPs allocated to Britain, France and the United States are considered Allied EPs, and may be spent without regard to their source.

31.23 EPs may be expended for the following:

(a) Weapons Development (Rule 32.0)

(b) Strategic Warfare (Rule 33.0)

(c) Air Warfare (Rule 34.0)

(d) Fort Construction (Rule 17.0)

## 32.0 WEAPONS DEVELOPMENT

The Weapons Development Chart (WDC) is designed to reflect the time and effort required to devise new weapons. The likelihood of a new weapon becoming available depends on the nature of the weapon and the resources (EPs) expended on its development.

### 32.1 Development Of New Weapons

32.11 The WDC provides for the development of six types of weapons: tanks, gas, anti-tank artillery, siege artillery (Allies only), super forts and stossstruppen (Germans only).

32.12 EPs may be expended to develop some, all or none of these weapons.

32.13 The ability to create a new type of weapon results from the successful roll of a die, as follows:

- (a) No die roll is permitted until the empty boxes at the left of the WDC are filled in for the weapon in question (one EP per box);
- (b) As the game progresses, the appropriate boxes on the right side of the WDC are checked off, one every three months;
- (c) To acquire the ability to produce a weapon, the player must roll a number equal to or less than the unchecked number for the month corresponding to the current Game-Turn. Die rolls are made in February, May, August and November Game-Turns, during the Interplayer turn, after the Naval Phase and before the Morale Phase. More than one die roll may be made in a Game-Turn, so long as the condition contained in Rule 32.13(a) is met;
- (d) The unchecked number on the right side of the WDC is modified by the number on the left side of the WDC immediately following the last checked box filled in by the expenditure of EPs for the weapon in question. The former number may be negative, zero or positive, depending upon how much time has passed. The latter number may be

zero (if the player has spent the minimum number of EPs required to comply with Rule 32.13(a)) or may be positive (if more than the minimum number of EPs have be spent);

- (e) Should a successful weapons die roll be made, the weapon for which the roll was made may be produced on that turn (the weapons die roll having been made before the Reinforcement Phase of the Interplayer turn).

Example: It is November 1916. The Central Powers player has spent eight EPs to develop tanks. The number on the right side of the WDC is "-1", the first unchecked number on the left side of the WDC is "+3". This gives "+2+" as the number to beat. The Central Powers player must roll a one or a two. He rolls a one, and may build one (or two) tank units during the Reinforcement Phase of the November 1916 Interplayer turn if he has sufficient German artillery replacement points available.

32.14 Each player keeps secret his copy of the WDC, his expenditures of EPs and the success and failure of his weapons die rolls until such information must be revealed.

## 32.2 Effect Of New Weapons

### 32.21 Tanks

See Rule 19.0

### 32.22 Gas

See Rule 20A.0

### 32.23 Anti-tank artillery

See Rule 20B.0

### 32.24 Siege artillery

32.241 Only the Allied player may develop siege artillery. Germany may not build additional siege artillery units, but may replace the units it had

originally (see Rule 14.25).

32.242 The Allied player may begin using British, French or American artillery replacement points to create siege artillery units on the turn of a successful roll on the Weapons Development Chart (WDC) (see Rule 32.0).

32.243 To create a siege artillery unit requires five artillery replacement points.

32.244 No more than one Allied siege artillery unit may be created per Game-Turn.

32.245 Siege artillery units are replaced by the Allied player in the same manner, and with the same restrictions, as it is created.

32.246 Siege artillery units created by the Allied player are British, French or American, depending upon which nation's artillery replacement points were used.

32.247 Siege artillery units created may be a 420mm unit (3-1-1) or a 305mm unit (3-2-2).

32.25 Super forts

32.251 Super forts function in the same manner as forts (see Rule 17.0), with the following differences:

- (a) A super fort modifies the attacker's die roll by -3, not -2;
- (b) A 305mm (3-2-2) siege artillery unit has no effect when used as siege artillery against a super fort (but it still functions as normal artillery if used in conjunction with another artillery unit). A 420mm (3-1-1) siege artillery unit used against a super fort modifies the attacker's die roll by +1, as it would against a fort;
- (c) A super fort must be built on a hex containing a fort. The cost of construction is one EP.

32.26 Stosstrupen

See Rule 18.0



### 33.0 STRATEGIC WARFARE

#### 33.1 Submarine Warfare

(The following supersedes Rule 23:1)

33.11 The Central Powers player may spend EPs on submarines at any time. The Allied player may spend EPs on anti-submarine warfare at any time.

33.12 The Central Powers player may initiate submarine warfare in any February, May, August or November Game-Turn, beginning in February. 1915.

33.13 The Central Powers player announces whether submarine warfare will be restricted or unrestricted. The cumulative total of EPs spent on submarines and anti-submarine warfare is revealed, and the difference determined (EPs expended are canceled on a 1 to 1 basis). If there is no surplus of submarines, there is no effect. If there is a surplus, the effects are as follows:

(a) Restricted submarine warfare:

(i) The British infantry replacement rate is reduced by the number of surplus EPs (to a maximum reduction of three);

(ii) The Allied sea supply capacity (see Rule 11.3) and naval movement capacity (see Rule 12.3) are reduced by the number of surplus EPs (to a maximum reduction of four).

(b) Unrestricted submarine warfare:

(i) The British infantry replacement rate is reduced by double the number of surplus EPs (to a maximum reduction of five);

(ii) The Allied sea supply capacity and naval movement capacity are reduced by double the number of surplus EPs (to a maximum reduction of five);

(iii) If the British infantry replacement rate drops to zero (or less), the British Morale Roll for that Game-Turn is reduced by one;

(iv) The Variable Entry die roll for the United States is decreased by one.

33.14 The Central Powers player may initiate, continue or discontinue either type of submarine warfare in subsequent February, May, August and November Game-Turns.

### 33.2 Blockade

(The following supersedes Rule 23.2)

33.21 The Allied player may implement the blockade in any February, May, August or November Game-Turn, beginning in February 1915, by the expenditure of one EP.

33.22 Once the blockade is in effect, the German infantry replacement rate is reduced by one for the first year following, two for the second, and so on, to a maximum reduction of five, and the Austria-Hungary (and Italian, if Italy has joined the Central Powers) infantry replacement rate is similarly reduced, to a maximum reduction of two. There is no effect on other Central Powers countries.

33.23 The Morale Roll (see Rule 24.0) for Germany and Austria-Hungary (and Italy, if Italy has joined the Central Powers) is reduced by one if the blockade is in effect. If the Morale Roll is made in a November Game-Turn, it is reduced by two.

33.24 The adverse effect of the blockade on the Morale Roll (only -- not the effect on the infantry replacement rate) may be countered by Germany (only) by the expenditure of two EPs during the three turns preceding the Morale Roll. If the Morale Roll is in a November Game-Turn, it would be reduced by one.

### 34.0 AIR WARFARE

#### 34.1 Obtaining Air Superiority

34.11 The Central Powers player and the Allied player may seek air superiority by the expenditure of EPs on air warfare.

34.12 In any February, May, August or November Game-Turn, a player seeking air superiority reveals the cumulative total of EPs expended by him on air warfare. For every three EPs expended over the opponent's cumulative total, the player receives one air unit.

34.13 If the player seeking air superiority has expended fewer EPs than his

opponent, the opponent need only reveal the number of EPs he has spent if he wishes to seek air superiority and acquire air units himself.

34.14 The struggle for air superiority continues in subsequent February, May, August and November Game-Turns, as additional EPs are expended on air warfare. The number and nationality of air units on the board may thus vary as the game progresses.

34.15 Air units received are, for the Central Powers player, German, and for the Allied player, British, French or American.

#### 34.2 How Air Units Operate

See Rule 20.0

## Morale Rules

(Rule 24.0)

24.11 (Clarification) A Morale Roll is made for a belligerent which has an infantry replacement rate of two or less if that rate is the result of an RR result on the Morale Table on the previous Morale Roll.

### 24.2 Explanation of Morale Table Results

24.21 RR = Reduce Replacements. The infantry replacement rate of the country is halved for the next three Game-Turns (round fractions up), beginning the turn of the Morale Roll.

24.22 D1, D2, D3, D4 = Desertion. The owning player rolls one die for each unit of the country which is currently on the map. If the result is less than or equal to the desertion level, the unit deserts and is immediately eliminated.

24.23 When rolling to determine if a unit deserts, the die roll is reduced by one if the unit is demoralized. Deserted units may be replaced.

24.24 If the Morale Roll for a country results in a RR or D effect, subtract one from all future Morale Rolls for the country. This is not cumulative -- the number of adverse Morale Roll results does not increase the modification for future rolls.

24.25 \* = No Effect.

## Suggested Changes and Additions

13.191 (Suggested change) If the odds in an attack are 1 to 2, the die roll is decreased by one. If the odds are 1 to 3, the die roll is decreased by two, and so on.

13.23 (Suggested change) If two siege artillery units attack a hex containing a fort, the die roll is increased by three (one for each unit, and one for having six artillery factors).

13.31 (Suggested change) The die roll is decreased by two when a hex containing both a city and rough terrain is attacked. The die roll is decreased by three when attacking units in a fort which is in a city hex.

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26.1 (Suggested change) Automatic victory is achieved whenever a "DE" result on the CRT is assured.

26.6 (Addition) Certain units lose some of their effectiveness outside of certain geographical areas. The following modifications are made to the attacker's die roll:

- 1 Any minor country unit outside its own country
- 1 Russian units on the Western Front
- 1 Italian units outside Italy and Austria-Hungary
- 1 Austria-Hungary units on the Western Front if outside Austria-Hungary or Italy

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Note: The modification is +1 if the unit is defending.

30.14 (Suggested change) There is no time limit on the Campaign Game.

30.15 (Suggested change) The Campaign Game ends when Berlin is controlled by the Allied player or when the Allied player admits that he is unable to make progress.

## Suggested Changes and Additions - Rationale

13.191 The existing rule states that attacks at less than 1 to 1 odds are resolved as 1 to 1 attacks with a -1 modification. This creates problems in three situations:

- (a) Soak-offs: A low-odds attack made to allow a high-odds attack against other enemy units in the same hex will result in the loss of the attacking unit only on the roll of a 1 or 2. This makes soak-offs too inexpensive for the attacker.
- (b) Attacks against advancing units: An enemy unit which has just advanced after combat to occupy a hex will often be surrounded. By a low-odds attack against such units, the attacker can destroy the advancing unit on a die roll of 4, 5 or 6, while he risks his smaller unit as set out above.
- (c) Mutual annihilation: As the adverse modification is only -1, the attacker may seek to bring about a DX result by using a small number of high quality troops. For example, three stosstrupen might attack nine enemy infantry units and three artillery units. If the Allied units are not entrenched, the attack will be resolved as a 1 to 1, with a +2 modification. On a 4, 5 or 6, the result is DX. As the existing rules state: "All defending units are eliminated." (Rule 13.41). The attacker cannot comply with the requirement to remove an equivalent number of attack factors, but it seems this leads to all his units being removed as well, rather than a downward adjustment of the defender's losses. (The same tactic can be employed by the Allied player, using airplanes, tanks, and gas, if the variant set out elsewhere in this magazine is used).

Suggested Changes and Additions - Rationale (cont.)

13.23 This is primarily introduced to balance the changes suggested to Rule 13.31.

13.31 Consistency. (Rule 13.33 - "All die roll modifications (including those for terrain) are cumulative). It is reasonable to assume that a city in rough terrain will be more difficult to capture than a city in clear terrain. The same applies to fortresses - otherwise the difference between a fort in a city hex and a city hex with an entrenchment is merely that units may enter and leave the fort without losing a modifier to the die roll. Both would be -2.

26.1 This flows from the phrase "automatic victory". This rule is more difficult to use when hidden movement is used (as it should be - see Rule 28.2).

26.6 Designed to avert a variety of anomalous possibilities, such as Italians or Russians propping up a demoralized France. The effect on the Balkan minors leads to interesting situations.

30.14 and 30.15 The Allied victory condition is clear enough. Because Germany cannot invade Britain, the maximum it can achieve is the destruction of France and Russia, which generally leads to a stalemate with Britain and the United States. Politically this would likely have been sufficient.

(GUNS OF AUGUST ARTICLE)

Suggested Changes and Additions

30.44 (Suggested change) During the first Game-Turn (only), immediately after the Central Powers Combat Phase, all German units on the Western Front north of Switzerland which are not adjacent to any Allied units may move and attack a second time. This second Movement and Combat Phase applies to both combat and combat support units, but only to those not adjacent to enemy units at the end of the first Combat Phase.

30.441 (Addition) During any Combat Phase in 1914 in which the weather on the Western Front is clear, the Central Powers player (only) may continue rolling the die until he receives an "AE", "AA" or "AD" combat result. Such continuous attacks may be made against enemy stacks of any size, but only against enemy units north of Switzerland, only during turns in which the weather is clear, and in any case no later than December, 1914.



(GUNS OF AUGUST ARTICLE)

Suggested Changes and Additions - Rationale

30.44 and 30.441 Because secret mobilizations and hidden movement give the advantage to the defender, it is virtually impossible for Germany to successfully invade France, no matter how little is put on the Eastern Front. These changes are an attempt to redress the balance.

The continuous attacks allowed in August, 1914 (when the weather is always clear: Rule 30.36), ensure the fall of Liege, although the Germans may suffer heavily as a result of a "DX" result or a series of "BD" results. The surviving infantry and artillery, as well as the units backed up behind the Meuse, will then be able to attack into France.

With the assistance of the French Offensive Doctrine (Rule 30.45), the Germans are favoured to take Lille in September, 1914, especially if the weather remains clear (a 2/3 chance). After that, all is in the hands of fate. A massive German attack, coupled with good weather and reasonable combat die rolls, may take Paris. Bad weather or poor rolls in critical attacks will stall the offensive.

Bearing in mind that GOA is a strategic game, several points should be noted. The first is that even the capture of Paris does not end the game, although France will certainly be in difficulties once the Morale rolls begin in 1916. The second is that continuous attacks are costly, and the damage to the Eastern Front will be great if Germany sends its Replacements to the West. And if both armies weaken in the West, the larger defence factors will become even more important.

In short, both the rewards and risk of the invasion of France are great, which is the way it should be. A failed invasion, coupled with real disasters in the East, would mean quick defeat for Germany.



### COMBAT RESULTS TABLE

DIE ROLL	COMBAT ODDS:						DIE ROLL
	1-1	2-1	3-1	4-1	5-1	6-1	
0	AE	AA	AA	AD	BD	BD	0
1	AA	AA	AD	BD	BD	DD	1
2	AD	AD	BD	BD	DD	DX	2
3	BD	BD	BD	DD	DX	DE	3
4	BD	BD	DD	DX	DE	DE	4
5	DD	DD	DX	DE	DE	DE	5
6	DX	DX	DE	DE	DE	DE	6

**Explanation:** AE = Attacker Eliminated, AA = Attacker Attrition, AD = Attacker Demoralized, BD = Both Demoralized, DD = Defender Demoralized, DX = Defender Exchange, DE = Defender Eliminated (see Rule 13.4).

### Gas Effect Table

Die Roll	1	2	3	4	5	6
No Defender Gas Unit on Board	+3	+2	+2	+2	+1	-
Defender Gas Unit on Board	+2	+1	+1	+1	-	-

Note: On the turn following the initial use of gas, all die roll modifications are reduced by one. Die roll modifications of zero remain at zero.

### Weather Table

Die Roll	1		2		3		4		5		6	
Front	W	E	W	E	W	E	W	E	W	E	W	E
Spring (Mar-May)	-	-	-	-	-	M	-	M	M	M	M	M
Summer (Jun-Aug)	-	-	-	-	-	-	-	-	-	-	-	-
Autumn (Sep-Nov)	-	-	-	-	-	M	-	M	M	M	M	S
Winter (Dec-Feb)	-	S	M	S	M	S	S	S	S	S	S	S

Note: During March (only) clear weather is treated as Mud if the weather on the previous turn was Snow

### Naval Interception Table

Die Roll	Hexes From Bremen to Invasion Hex:					
	1-3	4-6	7-8	9-10	11-12	13-20
1	*	*	*	*	*	*
2	A	*	*	*	*	*
3	A	A	*	*	*	*
4	E	A	A	*	*	*
5	E	E	A	A	*	*
6	E	E	E	A	A	*
7	E	E	E	E	A	A
8	E	E	E	E	E	A

\* = No Interception; A = Aborted (all units return to original port); E = Eliminated (all units are eliminated).

**Modifiers:** (-1) If Allied Blockade in effect  
(+1) For each level of effectiveness of Submarine Warfare

Die roll may not be reduced below one or increased above eight. Count hexes from Bremen along coast.

### Combat Modifiers:

- (-3) If defending units in Super Fort.
  - (-2) If defending units in Fort.
  - (-1) If all defending units occupy a rough, swamp, or city hex, or if all attacking units occupy a river hex, and none of the defending units occupy a hex traversed by the same river.
  - (+1) If any defending unit is demoralized.
  - (+1) For each siege artillery unit attacking units in a Fort (or for each 3-1-1 siege artillery unit attacking units in a Super Fort); and for every six regular artillery strength points (or siege artillery strength points used against a non-Fort/Super Fort hex) participating in any attack (round fractions down).
  - (+1) For each attacking tank, stosstrupen, and/or air unit.
- For attacks involving Gas units, consult Gas Effect Table.

### Notes:

A die roll less than zero is treated as zero.  
A die roll greater than six is treated as six.  
At odds less than 1-1, the die roll is decreased by one. At odds greater than 6-1, the die roll is increased by one. All modifiers are cumulative, however, the die roll may not be increased or decreased by more than three.

The -1 die roll modification for a city hex is not cumulative with the modification for rough terrain or Forts/Super Forts.

Variable Entry Table

Western Front:

	1914	1915	1916	1917	1918
Britain	4-6	4-6	4-6	4-6	4-6
Italy	1-6	2-6	3-6	3-6	3-6
U.S.	1-6	1-6	2-6	3-6	3-6

Modifiers:

- Britain: (+1) If Allies declare war on Belgium  
 (+1) If Central Powers control Paris  
 (-3) If Central Powers declare war on Belgium  
 (-2) If Central Powers declare war on Netherlands
- Italy: (-1) If U.S. is an Ally  
 (+1) If Britain is neutral  
 (+1) If Central Powers control Paris  
 (-1) For each Objective city in Germany the Allies currently control
- U.S.: (-1) If U.S. is an Ally  
U.S.: (+1) If Central Powers control Paris  
 (+1) If Britain is neutral  
 (-1) If Submarine Warfare is in effect

Eastern Front:

	1914	1915	1916	1917	1918
Turkey	1-4	1-4	1-4	1-4	1-4
Bulgaria	1-6	1-4	1-4	1-4	1-4
Rumania	1-6	1-6	2-6	3-6	3-6
Greece	1-6	1-6	2-6	3-6	3-6

Modifiers:

- All countries:  
 (+1) For each Objective city in Russia the Central Powers currently control  
 (+1) If either Turkey or Bulgaria is a Central Power  
 (-1) For each Objective city in Germany or Austria-Hungary the Allies currently control
- Greece (only):  
 (-1) If any Allied combat unit is in Greece

Results: Die roll within printed range: stays neutral  
 Die roll greater than larger number: Country joins Central Powers  
 Die roll less than smaller number: Country joins Allies

Note: Britain and U.S. may never join Central Powers  
 Turkey may never join Allies

Morale Table

<u>Die Roll</u>	-4	-3	-2	-1	0	1
<u>Result</u>	D4	D3	D2	D1	RR	-

Key: D# = Desertion  
 RR = Reduce Replacements  
 - = No effect

Note: Die rolls of less than -4 or greater than 1 are considered to be -4 and 1 respectively.

Modifiers:

All countries:

For each city in the country which the enemy player currently controls.....(-1)  
 If a RR or D# result had previously been reached on a morale table die roll.....(-1)\*

Germany:

If Allied Blockade in effect...(-1)  
 November morale table die roll if Allied Blockade in effect...(-2)  
 Central Powers control Paris...(+1)  
 Central Powers control 3 of 4  
 Russian rail hexes.....(+1)  
 Anti-blockade EP expenditure...(+1)

Austria:

If Allied Blockade in effect...(-1)  
 November morale table die roll if Allied Blockade in effect...(-2)  
 Central Powers control Rome....(+1)  
 Central Powers control 3 of 4  
 Russian rail hexes.....(+1)

Britain and France:

If the United States is neutral(-1)  
 If a United States unit has arrived on the board.....(+1)

Russia:

If the Allies control Constantinople.....(+1)

\*This modification affects all subsequent morale table die rolls. The modification does not increase if the country concerned has morale difficulties more than once.

Note: Roll every Feb, May, Aug, and Nov turn (beginning Feb 1916) for every country in the war with a replacement rate of three or greater.