Combined Combat Operations 1939-70's

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[1.0] INTRODUCTION

representing an actual battle.

OF PLAY

[2.0] GENERAL COURSE

Combined Arms is basically a two-Player game.

Each Player moves his units and engages in

combat in sequential Phases divided into two

each unit expends a portion of its Movement

Allowance for each hex entered depending upon

the type of terrain and presence of Enemy **Zones of**

Control. Combat is resolved by comparing the total

Defense Strength. This ratio is expressed as odds

and the proper column on the appropriate Combat

Results Table (depending upon what type weapon

defending unit is in) is consulted. A die is rolled

odds, a Combat Result is determined.

system is attacking and what type terrain the

and by cross-indexing the die roll with the correct

adjusted Attack Strength to the total adjusted

Player-Turns. To move from one hex to another,

Combined Arms is a simulation of company/

battalion level warfare from the 1930's to the

present. The units represent companies and

16.1 Notes for Scenario Nr. 16.2 Notes for Scenario Nr. 2 16.3 Notes for Scenario Nr. 3

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Armored Personnel Carriers (APC)

[3.0] GAME EQUIPMENT

delineated by the symbols on the map.

[3.2] THE PLAYING PIECES

The 22" x 34" mapsheet portrays a hypothetical

area measuring approximately ten by fifteen kilo-

meters. A hexagonal grid is superimposed on the

mapsheet to regularize movement of the playing

pieces. Terrain features significant to the game are

Two differently colored sets of playing pieces

(henceforth known as units) are supplied. They

represent the various military units of the opposing

forces that will be available in the scenarios. The

units are devoid of information except for the unit

type and, in some cases, whether the unit is light

(L) or heavy (H). The universal-type counters may

be used for all scenarios in all historical periods in

the game. The opposing forces in each of the

scenarios are composed by selecting units from

those provided on the counter sheet. It is strongly

type and color and keep them segregated. This

recommended that the Players sort their units by

greatly facilitates setting up the game.

[3.21] Summary of Unit and Marker Types

[3.1] THE GAME MAP

represented as battalion-sized units. The purpose of the game is to show the relationship of infantry, armor and artillery as integral parts of the combined arms team. Six scenarios are given, each

Artillery Supply Unit

Disruption Level 1

D3 Disruption Level 3

[3.22] Unit Sizes

The unit sizes are not shown on the counters; depending upon the scenario, they vary from company to battalion in size. Combat Strength and Movement Allowance, as well as the range of the weapons, are not shown on the counters because of the wide variety of unit types given in the scenarios. The number of different types of units in each scenario is quite small, so these can be easily remembered when playing each scenario.

Attack Strength-Hard - This is the basic offensive Combat Strength of a unit when attacking a Hard Target (see 8.62).

Combat Strength of a unit when attacking a Soft Target (see 8.61).

Strength of a unit when defending.

Range Allowance — This is the number of hexes of distance over which a unit may apply its Attack

TABLES DESCRIPTION

Various visual aids are provided to simplify and illustrate certain game functions. Chiefly, these are the Terrain Effects Chart, the Hard Combat Results Table and the Soft Combat Results Table. Each of these aids is fully explained where presented. Most of the charts and tables are compiled in a single section in this set of rules (see 14.0, Charts and Tables).

should include the following parts: One rules folder One set of die-cut counters

one hour of real time and each hex is the

Combined Arms is played in turns called

Game-Turns. Each Game-Turn is composed of

equivalent of 300 meters from side to side.

[4.0] SEQUENCE OF PLAY

Two (identical) chart sheets One mapsheet

[4.1] THE GAME-TURN

One box (boxed edition only) One die (boxed edition only)

Infantry

• Light Artillery

Anti-Tank Guns

D2 Disruption Level 2

a. Current Forces Movement Segment: The Alpha during this Phase.

[3.23] Definition of Terms:

Attack Strength-Soft — This is the basic offensive

Defense Strength — This is the basic Combat

Movement Allowance - This is the basic movement ability of a unit quantified in terms of Movement Points. In most cases a unit spends one Movement Point of its total Movement Allowance for each hex entered.

Strength, Hard or Soft.

[3.3] GAME CHARTS AND

[3.4] GAME INVENTORY

A complete set of the Combined Arms game

Armored Reconnaissance

[3.5] GAME SCALE Each Game-Turn in Combined Arms represents

Heavy Artillery

Light Tanks

Assault Guns

eleven Phases that are divided into two Player-Turns. The Player whose Player-Turn is currently in progress is termed the Phasing Player. During each Player-Turn the Phasing Player moves his units and engages in combat. The Player who moves first is called the Alpha Player: the battalions of tanks or infantry. Artillery units are — Artillery Impact Area Player who moves second is called the Bravo Player. All actions must take place within the Air Strike/Triple-Fire limits of the Sequence of Play. Any action Artillery Impact Area performed out of Sequence is a violation of the

> [4.2] SEQUENCE OUTLINE A. Alpha Player-Turn

1. Alpha Player Command Control Determination

The Alpha Player draws; a chit(s) and determines which of his units suffer from a Loss of Command Control (see 12.0, Command Control for procedure and effects). Units affected are inverted and considered out of Command Control for the entire Player-Turn.

2. Alpha Player Movement Phase:

Player may move any and all of his units that have not suffered from a Loss of Command Control, in any direction up to the limit if the Movement Allowance of the individual unit and within the [5.21] The number of Movement Points which restrictions outlined in the Movement Rules (see must be expended to enter a given hex will vary 5.0. Movement) and Zone of Control Rules (see 6.0. Zones of Control). All Overruns are performed

b. Reinforcement Segment: After all movement of number of Movement Points to enter a given hex currently available forces ceases, the Alpha Player are cumulative. brings on all of his reinforcements scheduled for [5.22] Units may not leave the mapsheet unless his Game-Turn and then moves them in a normal specifically permitted to do so by the scenario. fashion, committing Overruns as desired and as Should a unit leave the mapsheet for any reason possible. Entering units must pay the Movement without being permitted, it is considered Point cost of the hex they first entered.

eliminated and does count for Victory Points (if

[5.23] A unit may always move a single hex in a

given Movement Phase as long as it is not leaving

one Enemy Primary Zone of Control and directly

entering another Enemy Primary Zone of Control;

or, in the case of artillery, anti-tank gun, and

Primary Zone of Control and directly entering

another Enemy Secondary or Primary Zone of

its Movement Phase on the same hex with an

An Overrun is a type of attack performed during

attack during the Combat Phase within a given

Player-Turn. Only one unit may perform an

Overrun against a specific hex (exception: see

To perform an Overrun a Friendly unit must

actually move onto the target Enemy unit and then

exit the hexside opposite from the one entered and

then stop in the exit hex (exception: see 5.36). After

all adjustments are made in Attack Strength

(modified by the Overrun) and Defense Strength

(modified by terrain), the Overrun is resolved

[5.31] Overruns may be performed by any armored

unit (tanks, assault guns and armored

recconaissance), infantry units mounted in

Armored Personnel Carriers and by unmounted

infantry units. Overruns may never be performed

by artillery, anti-tank guns, nor by infantry units

mounted in trucks (nor by the trucks alone). APC's

not carrying infantry may never perform an

[5.32] To perform an Overrun a Friendly unit must

move through the Enemy unit and into the hex

opposite from the hexside originally entered. This

exit hex must be unoccupied by both Friendly and

Enemy units at the instant of the Overrun. The

Overrunning unit must then stop in that exit hex

(exception: 5.36) and move no further that

[5.33] It costs tanks, assault guns and infantry

mounted in Armored Personnel Carriers four

additional Movement Points to Overrun an Enemy

Hard Target: it costs two additional Movement

Points for these units to Overrun an Enemy Soft

[5.34] There is no additional Movement Point cost

for unmounted infantry to Overrun either Enemy

[5.35] Attack Strength may be modified when

performing an Overrun depending upon what type

Strength of infantry and armored reconnaissance

units is always doubled when performing an

Overrun (the Hard or Soft Attack Strength is used

as the basis depending upon what type of unit is

being Overrun; this is similar to normal combat).

If the unit performing the Overrun is a tank or

assault gun Overrunning a Soft Target, the Soft

Attack Strength is tripled if the Overrun is

performed in Clear terrain. If a tank or assault gun

Hard or Soft Targets.

exactly as normal combat.

Enemy unit.

[5.3] OVERRUNS

elimination of units is a criteria for Victory).

. Alpha Player Combat Phase: The Alpha Player now executes all attacks that he wishes. Combat results are effective immediately. Artillery/Air Strike interdiction is also conducted

during this Phase. 4. Alpha Player Disruption Removal Phase: truck units, leaving an Enemy Secondary or The Alpha Player now attempts to remove all Disruption Markers placed on his units as a result of combat and/or Overruns in any previous Bravo

[5.24] Units may never enter hexes containing 5. Interdiction Removal Phase: Enemy units except during the act of Overrunning All interdiction markers laid down by the Bravo Player during his previous Player-Turn are now that unit. Under no circumstances may a unit end

B. Bravo Player-Turn The Bravo Player repeats steps 1-5, using his (Bravo) forces.

the Movement Phase; it is not considered combat. C. Game-Turn Record Phase This means that a unit may perform both an Players now note, on a separate sheet of paper, the Overrun during the Movement Phase and an passage of one Game-Turn.

[4.3] GAME LENGTH

Players repeat steps one through eleven for the number of Game-Turns indicated by the scenario. At the end of the last Game-Turn, the game is over and the Players' performances are evaluated in light of the Victory Conditions for that particular

[5.0] MOVEMENT

GENERAL RULE:

During the Movement Phase, the Phasing Player may move as many or as few of his units as he wishes. During each Friendly Movement Phase each unit may be moved as many or as few hexes as the Phasing Player desires, as long as its Movement Allowance is not exceeded in a single Movement Phase (each unit's Movement Allowance is specified in the Scenario). Unused Movement Points, however, may not be accumulated from Phase to Phase nor transfered from unit to unit. Also, units that suffer Loss of Command Control may not move in the Game-Turn they suffer Loss of Command Control.

Move each unit individually, tracing the path of its movement through the hexagonal grid. Once each unit has been moved and the Player's hand withdrawn, the unit may not be moved again, nor may the path be retraced and/or changed during that Movement Phase.

CASES

[5.1] HOW TO MOVE UNITS

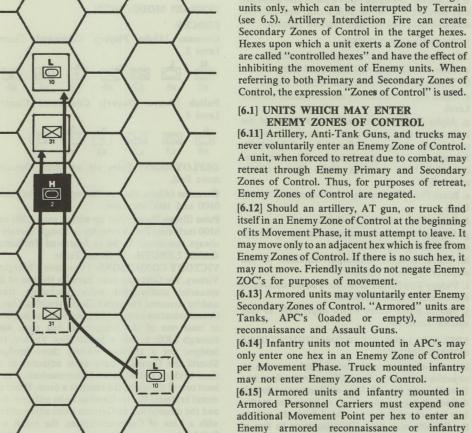
[5,2] MOVEMENT INHIBITIONS

[5.11] During the Movement Phase, only the Phasing Player's units are moved. All, some or none of his units may be moved. No Enemy Movement and no combat may occur during a Movement Phase (exception: see 5.3, Overruns)

[5.12] Movement is calculated in terms of of unit is performing the Overrun and in what type Movement Points. Basically, each unit expends of terrain the Overrun is occurring. The Attack one Movement Point of its total Movement Allowance for each hex it enters.

AND PROHIBITIONS with the type of terrain in the hex being entered, the terrain on the hexside which is crossed, as well as Enemy Zones of Control. All increases in the Overruns a Soft Target in any type of Rough Terrain, the Soft Attack Strength is used without [6.0] ZONES OF CONTROL any modification. If a tank or assault gun Overrun a Hard Target in Clear Terrain, tanks automatically Overrrun with a Strength of 18; assault guns automatically Overrun with a Strength of 12. If these units Overrun Hard Targets in any kind of Rough Terrain, tanks Overrun automatically with a Strength of 6; assault guns Overrun automatically with a Strength of 4.

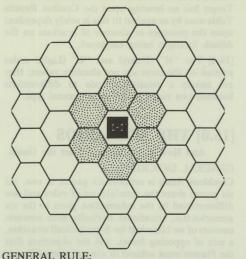
[5.36] Wave Overrun: An infantry (or an armored recconaissance unit) and an armored unit (tank or assault gun) may both Overrun the same Enemy unit in what is called a Wave Overrun. In this case, both units must Overrun through the same hexside. The infantry unit (or infantry mounted in APC's or the armored reconnaissance unit) Overruns first and stops on the first exit hex; the armored unit Overruns through the same hexside. passes through both the Enemy unit and the Friendly infantry unit, and then stops. Note that both ending hexes must be vacant before the Wave Overrun is performed. The adjusted Attack Strengths are totalled (doubled for the infantry and as per the terrain for the armored unit; see 5.35) and the combat is resolved on the Hard Combat Results Table.



[5.37] All Enemy Zones of Control are ignored by Friendly Overrunning units while performing an Overrun. This includes interdicted hexes.

[5.38] Combat results suffered during an Overrun are applied immediately after the Overrun is [5.39] An unmounted infantry unit in Rough

Terrain may always Overrun an Enemy unit to which it is adjacent at the beginning of the Movement Phase. In other words, the terrain cost is ignored when the two units are adjacent to one another at the beginning of the Movement Phase in the case of unmounted infantry performing an



The six hexagons immediately surrounding a unit constitute that unit's Primary Zone of Control. All combat units exert a Primary Zone of Control. For an additional two hexes out in all directions there s [6.5] TERRAIN EFFECTS is a Secondary Zone of Control for infantry, armored reconnaissance, tanks and assault gun units only, which can be interrupted by Terrain (see 6.5). Artillery Interdiction Fire can create Secondary Zones of Control in the target hexes. Hexes upon which a unit exerts a Zone of Control are called "controlled hexes" and have the effect of inhibiting the movement of Enemy units. When referring to both Primary and Secondary Zones of Control, the expression "Zones of Control" is used.

[6.1] UNITS WHICH MAY ENTER ENEMY ZONES OF CONTROL

[6.11] Artillery, Anti-Tank Guns, and trucks may never voluntarily enter an Enemy Zone of Control. A unit, when forced to retreat due to combat, may retreat through Enemy Primary and Secondary Zones of Control. Thus, for purposes of retreat, Enemy Zones of Control are negated.

[6.12] Should an artillery, AT gun, or truck find itself in an Enemy Zone of Control at the beginning of its Movement Phase, it must attempt to leave. It may move only to an adjacent hex which is free from Enemy Zones of Control. If there is no such hex, it may not move. Friendly units do not negate Enemy ZOC's for purposes of movement.

[6.13] Armored units may voluntarily enter Enemy Secondary Zones of Control. "Armored" units are Tanks, APC's (loaded or empty), armored reconnaissance and Assault Guns.

[6.14] Infantry units not mounted in APC's may only enter one hex in an Enemy Zone of Control per Movement Phase. Truck mounted infantry may not enter Enemy Zones of Control.

Armored Personnel Carriers must expend one additional Movement Point per hex to enter an Enemy armored reconnaissance or infantry (mounted or dismounted) unit's Secondary Zone of Control. They must expend two additional Movement Points per hex to enter an Enemy tank or Assault Gun's Secondary Zone of Control. Overlapping Zones of Control do not add to the point cost of entering a controlled hex; no matter how many Secondary Zones of Control may be exerted into a specific hex, the Movement Point cost remains the same. However, if both an infantry and an armored units' Secondary Zones of Stacking (i.e., the placement of more than one unit Control are exerted in the same hex, the armored in a given hex) is never permitted. unit's Secondary Zone of Control Movement Point

[6.2] MOVEMENT EFFECTS OF PRIMARY ZONES OF CONTROL

[6.21] There is no extra Movement Point cost to [7.11] The act of mounting a vehicle by an infantry enter an Enemy Primary Zone of Control.

However, a unit that does enter an Enemy Primary Zone of Control must cease all further movement for that Movement Phase, except when performing an Overrun.

[6.22] A unit may never move from one hex in an Enemy Primary Zone of Control directly to another hex in an Enemy Primary Zone of Control.

[6.23] A unit that starts its Movement Phase in an Enemy Primary Zone of Control may move and reenter another Primary Zone of Control provided that it enters at least one non-controlled hex or a Secondary Zone of Control first.

[6.3] COMBAT EFFECTS OF ZONES OF CONTROL

Zones of Control do not affect combat. Attacking is completely voluntary. The presence of an Enemy unit and/or Primary or Secondary Zone of Control never force combat.

[6.4] VEHICLES AND ZONES OF CONTROL Unoccupied vehicles (trucks and Armored Personnel Carriers) never exert a Zone of Control. While loaded with an infantry unit, normal Zones of Control are exerted by the infantry unit. In other words, a mounted infantry unit does exert normal

ON ZONES OF CONTROL

Secondary Zones of Control do not extend through River hexsides or into Rough Terrain hexes. Primary Zones of Control do extend through River hexsides and into Rough Terrain hexes. Bridges. roads and fords in no way allow a Secondary Zone of Control to extend into or through terrain otherwise forbidden to it. However, Secondary Zones of Control do extend out of Rough Terrain hexes that border a Clear Terrain hex. In this case, the Secondary Zone of Control extends out of the hexside that borders the Clear Terrain (only).

[6.6] ARTILLERY INTERDICTION

[7.14] Infantry and/or vehicle units that have Normal artillery fire creates the effect of an infantry suffered a Loss of Command Control may not unit Secondary Zone of Control in the hex in which mount or dismount. it lands if fired for the expressed purpose of interdiction. Rapid Fire artillery and Air Strikes create [7.15] Friendly units may freely pass through one the effect of an armored unit Secondary Zone of another during the Movement Phase with no Control if fired for the purpose of interdiction. additional Movement Point cost incurred. This is Allocated interdiction is automatic.

[6.61] Zones of Control are created by artillery fire or Air Strikes (interdiction) are not cumulative That is, only one Secondary Zone of Control is created in the hex regardless of lhow many strikes

[6.62] The Secondary Zone of Control is created only as a result of an interdiction fire mission: a normal artillery or Air Strike attack on an enemy unit does not create a Zone of Control.

[6.63] The effects on an interdicted hex last through the next Enemy Player-Turn. In the case of the Bravo Player, the effects off his interdictions will actually last into the next Game-Turn.

[6.64] Artillery cannot fire interdiction against a hex that they cannot see (see 11.3 Terrain Effects [6.65] Artillery may either attack or fire

interdiction during a single Game-Turn, but not

[7.0] STACKING

[7.1] MOUNTING AND DISMOUNTING TRUCKS AND ARMORED PERSONNEL CARRIERS

unit is a special case that is not actually considered

hex) and the vehicle unit must expend one-half of terrain the defending unit is in. When the Movement Point cost is over and above the cost of odds column. Apply the results immediately before entering the hex). If the vehicle unit has any resolving any other combat. Movement Points left over, the vehicle may move on with the infantry unit mounted in it. Although the two counters (vehicle and infantry) will actually [8.1] WHO MAY ATTACK be in the same hex, they are not considered stacked; they are treated as one unit with the Zones of Control and Attack Strength of the Enemy units. If the attacking unit is infantry or infantry unit and the Movement Allowance and armored reconnaissance, it must be adjacent to the Defense Strength of the vehicle unit. Enemy unit in order to attack it; if the attacking

[7.12] To dismount from a vehicle, the infantry

unit must remain stationary for the entire

Overruns (note that infantry mounted in Armored

Personnel Carriers must pay the same Movement

Point cost as armored units to perform an

Zone of Control may not dismount; to do so would

require an expenditure of Movement Points.

Infantry mounted in Armored Personnel Carriers,

however, may dismount in Enemy Zones of Control

because the APC's may expend Movement Points

[7.21] Overstacking occurs whenever two or more

units are in the same hex at the end of any Phase

(note that mounted infantry are treated as one

unit). It does not matter if the units are Enemy or

[7.22] Should Oevrstacking result from a retreat,

Combat occurs between opposing units at the

Phasing Player's discretion. During the Combat

Phase, the Phasing Player may choose to have his

unit may attack more than once per Combat Phase

and no unit may be attacked more than once per

During the Combat Phase, the Phasing Player

and compare it to the total adjusted Defense

units attack Enemy units that are within range. No

the retreating unit is eliminated instead.

Overrun). Truck-mounted infantry in an Enemy

longer in the same hex.

under these circumstances.

not considered Stacking.

[7.2] OVERSTACKING

[8.0] **COMBAT**

GENERAL RULE:

Combat Phase.

PROCEDURE.

Movement Phase; the vehicle counter must then expend one-half of its Movement Allowance (rounding fractions up) in the same hex with the [8.12] Attacking is completely voluntary. Units are infantry unit and then leave that hex, paying all never compelled to attack and not every unit that is Movement Point costs, so that the two units are no able to attack need attack. [8.13] An Enemy occupied hex may be attacked by [7.13] Because truck units may never voluntarily

as many Friendly units that are within range. enter Enemy Zones of Control, in effect, infantry however, the Attack Strengths must be totalled mounted in trucks may not engage in normal and the combat conducted as a single attack. combat (because of range considerations) nor [8.14] Units may participate in both Overruns and conduct Overruns. Armored Personnel Carriers normal combat in a single Game-Turn during the may enter Enemy Zones of Control and may appropriate Phases. therefore engage in both normal combat and

[8.2] MULTIPLE UNIT COMBAT

[8.21] A Friendly combat unit may attack only one Enemy ocupied hex per Game-Turn. However, a Friendly unit may participate in both an Overrun and normal combat, even against different Enemy

[8.3] COMBAT ODDS CALCULATION

Defender. For example, an Attacker with an Attack Strength of "16" against a Defender with a Defense Strength of "6" produces a raw odds ratio of 16-6 which would round off to a 2-1 combat situation for combat resolution purposes. That column on the appropriate Combat Results Table would be used.

[8.31] Attacks or Overruns at less than 1-1 odds are not allowed; attacks or Overruns at greater than

10-1 odds are treated as 10-1. [8.4] EFFECTS ON COMBAT STRENGTH Combat Strength of units may be affected by terrain and Improved Positions. anti-tank guns and normal artillery.

This modification is always expressed by a multiple of the unit's Defense Strength. These multiples may be added together. For example, a unit that is doubled by terrain considerations and then doubled again by being in an Improved Position has its Defense Strength multiplied by

[8.41] In certain scenarios, a given Player's unmounted infantry units are considered to be in Improved Positions when in operative Rough Terrain. This represents the ability of those units to take best advantage of the natural defensive features of that terrain (it does not represent actual fortifications). Such a unit always gets the Improved Position benefit when in Rough Terrain; i.e., there is no restriction to be fulfilled in order that it be considered to be in an Improved Position. Improved Position ability has the effect of doubling the normal defensive advantage for unmounted infantry in Rough Terrain. Normal of the attacking units involved in a specific attack

Zone of Control rules for Rough Terrain remain in

simply attacks any Enemy units he wishes that are within range. Total the adjusted Attack Strength

Strength of the unit under attack. State the [8.5] WEAPONS TYPE comparison as a probability ratio (odds), AND COMBAT STRENGTH Attacker's Strength to Defender's Strength. Round off the ratio in favor of the Defender to

stacking. For this procedure to occur, the infantry Combat Results Table. To determine which If attacking a Soft Target the "Attack unit may not move during its Movement Phase; the Combat Results Table to use, first see what Strength-Soft" is used; if attacking a Hard Target vehicle unit comes to the infantry unit (on the same weapon types are attacking and what type of the "Attack Strength-Hard" is used. If the appropriate Attack Strength is bracketed, the its Movement Allowance (rounding fractions appropriate Combat Results Table is found, roll Hard Combat Results Table is used, if it is up) on the same hex with the infantry unit (this the die and read the result on the line under the unbracketed the Soft Combat Results Table is

or Soft Target, check the Defense Strength of the defending Enemy unit. If the Defense Strength is bracketed, it is a Hard Target; if the Defense Strength of the defending Enemy unit is unbracketed, it is a Soft Target.

Strength-Hard are subject to range attenuation while attacking Hard Targets (see 8.83). All units unit is a tank, anti-tank gun, assault gun or that are attacking Soft Targets or have normal artillery, it will have a Range Allowance unbracketed Attack Strengths are not subject to that will enable it to attack at some distance (see range attenuation. [8.52] The following units always use the Hard

Combat Results Table: Tanks, Assault Guns, Anti-Tank Guns. [8.53] The following units always use the Soft

Combat Results Table except when attacking in conjunction with the units listed in 8.52: Infantry Artillery, Armored Reconnaissance, Air Strikes

AND SOFT TARGETS [8.61] The following units are considered Soft

Targets: Dismounted Infantry, Entrucked infantry, Trucks, Artillery, Anti-Tank Guns, Infantry in Improved Positions, Artillery Supply

[8.62] The following units are considered Hard Targets: Infantry mounted in Armored Personnel Carriers, Tanks, Assault Guns, Armored

Combat odds are always rounded off in favor of the

All non-infantry and non-armored reconnaissance combat units are, in effect, artillery, Tanks, assault guns and anti-tank guns can be considered mobile artillery platforms. However, a differentiation must be made between tanks, assault guns,

attenuation (see 8.83).

Allowance with no lessening of its Attack Strength, either Hard or Soft.

effect for units with the Improved Position benefit.

To determine if a Friendly unit is attacking a Hard [8.11] During the Combat Phase of his Player-Turn, the Phasing Player may attack

[8.51] All units that have a bracketed Attack

[8.6] DEFINITION OF HARD

[8.7] CONCENTRIC ATTACKS

When a unit is completely surrounded by the Primary Zones of Control of attacking, adjacent Enemy units, the result is a Concentric Attack. The effect of a Concentric Attack is that all attacking units have their Attack Strength doubled (after all other modifications). The presence of a unit Friendly to the defending unit in an adjacent hex does negate the effect of a Concentric Attack.

[8.8] ARTILLERY

[8.81] All tanks, assault guns and anti-tank guns must attack all Soft Targets as artillery. That is, they project an Attack Strength of ten (Soft Attack Strength) up to the distance of the attacking unit's Range Allowance. Note that these units firing under these circumstances are not subject to range

[8.82] All tank, assault gun and anti-tank gun units must attack Hard Targets with their Hard Attack Strength (which is subject to range attenuation). [8.83] Range attenuation works as follows: if the target unit is adjacent to the firing unit, the Attack Strength is not reduced. Otherwise, subtract one Strength Point from the Hard Attack Strength for each intervening hex between the target and the firing unit. Note that range attenuation applie only in the circumstances given in 8.51 and 8.82. [8.84] Normal artillery is never subject to range attenuation. It may fire up to its total Range

[8.85] Normal artillery units may triple their

Attack Strength during any Combat Phase

through the use of Rapid Fire. However, after

doing so, they then cease to exist and are removed The Attack Strength of units vary depending upon from play. The removal of a unit in this fashion conform to the simplified odds found on the whether the unit is attacking Hard or Soft Targets. counts as a unit destroyed for Victory Point

particular scenario as a criterion for Victory. A normal artillery unit may use Rapid Fire and not be eliminated if it has an Artillery Supply unit adjacent to it to be "burned" as ammunition supply. One Artillery Supply unit is needed for each artillery unit using Rapid Fire in a Combat Phase. Artillery Supply units may not be moved once they are placed at the beginning of the game. Artillery Supply units removed from play due to Rapid Fire do not count toward Victory Conditions.

[8.86] Indirect fire is never used in Combined Arms. An attacking unit must have a direct line of sight to the defending unit in order to fire upon it.

[8.9] AIR STRIKES

[8.91] A limited number of Air Strikes are available to Players in certain scenarios. Air Strikes may be conducted against any Clear Terrain hex that the attacking Player desires. Note that the hex under attack does not have to be within Line of Sight of any Friendly unit.

[8.92] For combat purposes, Air Strikes are treated as Rapid Fire artillery attacks (see 8.85). That is, they have an automatic Attack Strengh of 30 against Soft Targets and 3 against Hard Targets. The Soft Combat Results Table is used to resolve an Air Strike attack.

[8.93] Air Strikes may interdict hexes in the same fashion as artillery (see 6.6, Artillery Interdiction)

[9.0] COMBAT RESULTS [See Tables 13.2 and 13.3 on separate sheet.

There are six Combat Results Tables in Combined Arms. They are divided into two categories with three different tables per category. One category is for use by units with bracketed Attack Strengths called the "Hard Combat Results Table"; the other category is for use by units with unbracketed Attack Strengths called the "Soft Combat Results Table". The three different Combat Results Tables per category are used depending upon what type of terrain the defending unit is in; i.e., Rough #1, Rough #2, and Clear.

To conduct an attack, the Attacker determines which category to use, depending upon whether or not his Attack Strength is bracketed; then the proper Combat Results Table is determined depending upon what type of terrain the defending unit is in. After all adjustments are made for range attenuation and terrain benefits to the Defender, the Attack Strength is compared to the Defense Strength to form a ratio (or "odds"). This ratio (odds) is always rounded off in the Defender's favor. The proper odds column is found under the appropriate Combat Results Table and a die is rolled. The die-roll is then cross-indexed with the odds column to determine the combat result. Attacks (or Overruns) at less than 1-1 odds are not allowed and attacks at greater than 10-1 odds are treated as 10-1 odds.

[9.1] EXPLANATION OF RESULTS

They are Retreat, Disruption, elimination of the Defender and no effect.

[9.11] A combat result of "1" indicates that the defending unit must retreat one hex; a result of "2" indicates that the defending unit must retreat two hexes; etc. The retreating unit is retreated by the defending Player. The unit must retreat towards and, if possible, into the nearest Rough Terrain area unoccupied by Enemy units. If no Rapid Fire. Rather than having the artillery unit unoccupied Rough Terrain area is available, the removed from play as described in 8.85, an

Control but not Enemy units. A retreating unit that cannot retreat around an Enemy unit is eliminated. If a unit is called upon to retreat more than its Movement Allowance, it retreats its full Movement Allowance and then suffers a "D1"

result (see 9.12). Note that this will occur in the

Expanded Game only. A retreating unit does not

[9.12] The Combat Results Table may call for a

Disruption result. In this case, the unit does not

etreat but remains in place and has the

appropriate Disruption Marker (D1, D2 or D3)

placed upon it. A unit that is Disrupted loses its

Secondary Zone of Control, may not attack, may

not move and defends at half-Strength, rounding

fractions up. A unit remains Disrupted until the

appropriate die roll occurs during the Disruption

Removal Phase. For a "D1", a die roll of 1, 2 or 3

is required; for a "D2", a die roll of 1 or 2 is

needed; for a "D3", a die roll of 1 is needed to

remove the Disruption. The effects of Disruption

are cumulative; that is, if a unit has a "D1"

Marker on it suffers a "D2" result in a subsequent

Combat Phase, it would have a "D3" Marker

placed upon it. Any unit that achieves a Disruption

level higher than "D3" is considered eliminated.

Should a unit that is Disrupted suffer a retreat

result during a Combat Phase, it does not retreat.

It remains in place and suffers the same result as

An attacking unit may advance into a hex that the

defending unit retreats out of or a hex left vacant

because the defender was eliminated. In other

not perform Overruns and they may not exceed

their Movement Allowance. Advancing units must

pay terrain costs as if they were making a normal

In general, there are no supply requirements in the

game. The only supply used applies to artillery

Player places them on the map when deploying his

forces. Once deployed, they may not be moved.

[10.0] ARTILLERY SUPPLY

[9.2] ADVANCE AFTER COMBAT

pay terrain costs.

an additional "D1"

[10.21] Artillery supply units defend as a Soft Target with a Defense Strength of "1".

[10.22] Artillery supply units are destroyed if they receive a "DE" result on the Combat Results Table. A "Retreat" result has no effect. If they suffer a "Disruption", they may not be used for artillery supply purposes until the Disruption

GENERAL RILE.

The map portrays a hypothetical piece of terrain Basically, four types of terrain are shown: Rivers Rough #1, Rough #2 and Clear. These different terrain features have different effects depending upon the type of Terrain Mode called for by the scenario. There are four types of Terrain Modes Open Terrain, Mixed Terrain, Closed Terrain and Urban Terrain, The Terrain Effects Chart details the effects of the various types of terrain as per the specific Terrain Mode in terms of defensive value and Movement Point cost. See the Terrain Effects

[9.13] A combat result of "DE" means that the defending unit is eliminated and is removed from

The Game Map shows all the types of terrain. It is important to keep in mind that under certain types of Terrain Modes, various terrain features will actually disappear (for example, Rough #1 in the Open Terrain Mode).

[11.2] EFFECTS OF RIVERS IN COMBAT

involved attacking unit(s) may occupy these three and only these three hexes that the Enemy unit [9.21] Only attacking units that were directly adjacent to the defending unit may advance after [9.22] Units that are advancing after combat may one attacking unit on the same side of the River as ignore Enemy Zones of Control but not Enemy the defender will negate its defensive value. units. Units that are advancing after combat may

[11.3] TERRAIN EFFECTS ON SPOTTING

Rough Terrain, but not through.

supply units. These are immobile units (actually For a Friendly unit to be able to fire at an Enemy unit, the Friendly unit must be able to see its target. Certain terrain features block the line of Sight. Rough #2 always blocks the Line of Sight; Rough #1 blocks Line of Sight except in Open Terrain Mode. The Line of Sight is a perfectly straight line traced from center of hex to center of hex. If at any point this line passes through an intervening blocking hex, that Line of Sight is that scenario. When they are given, the owning obstructed and the target may not be fired upon

GENERAL RULE:

[10.11] During the Combat Phase, the Phasing Player announces that he is making a Rapid Fire artillery attack and states which unit(s) is using unit must be retreated away from Enemy units if adjacent artillery supply unit is removed following Control, Disruption, or Zones of Control).

purposes if destroyed units are used in that possible. A retreating unit ignores Enemy Zones of the Rapid Fire artillery attack. The removal of this unit does not count towards fulfilling Victory

[10.2] COMBAT EFFECTS ON ARTILLERY SUPPLY

[11.0] TERRAIN EFFECTS

[11.1] VARIABLE TERRAIN MAP

words, if a defending unit retreats three hexes, the Defensive values of Rivers are an odd case that cannot be fully explained by the Terrain Effects Chart. The defensive value of Rivers apply onl under specific circumstances. The defending uni must be in a hex adjacent to a River (i.e., at least one hexside of the hex the unit is defending must contain a River). The defending unit must be attacked solely from across a River hexside(s); even

> [11.21] Defending units do not receive the defensive value of a River if attacked exclusively by an Air

[11.22] Defending units do receive the defensive value of a River if Overrun from across a River

[11.23] Defending units do not receive the defensive value of Rivers if attacked solely by

All units may see into (and out of) one hex of

[11.4] EFFECTS OF TERRAIN ON MOVEMENT

[11.41] Various terrain will cost more than one

representing ammunition depots) which are placed at the beginning of the game and are consumed by adjacent artillery units in order to execute Rapid Fire (see 8.85). PROCEDURE Artillery supply units are specifically assigned as per the scenario like any other unit; if none are given in the Order of Battle, then there are none in

[10.1] HOW TO USE

ARTILLERY SUPPLY UNITS

Movement Point to enter (including crossing River hexsides). Note that these effects are additive (see 5.21 and 13.1, Terrain Effects Chart). Units may always move one hex regardless of terrain costs although they may be "frozen" in position due to other considerations (i.e., Loss of Command

[12.0] COMMAND CONTROL GENERAL RULE:

In each scenario, both Players are assigned a Command Control Level. Command Control rules reflect the tendency of units to receive garbled orders, not receive them at all or simply disobey orders. In general, Players in Combined Arms determine the extent of their Loss of Command Control through the drawing of chits. Each Player draws a number of chits equal to his Command Control Level; i.e., if the Command Control Level is "2", he draws two chits. The Player then compares the numbers on the chits that he has drawn to the last number in the hexes on the hex grid. Any Friendly unit on a hex whose number matches a number on a drawn chit is considered to have suffered from Loss of Command Control. The effects of Loss of Command Control last for the entire Player-Turn. Any combat units so affected may neither attack nor move; they defend with their full Defense Strength and retain all Zones of Control. Infantry units and vehicles that are affected through Loss of Command Control may neither mount nor dismount. Players should denote units that have suffered from Loss of Command Control by flipping them upside-down and leaving them that way for their entire

[12.1] LOSS OF COMMAND CONTROL: EFFECTS ON ARTILLERY

units are turned right-side up.

Player-Turn. At the end of their Player-Turn, the

[12.11] Sides with a Command Control Level of four (or higher) must have at least one Friendly combat units (not necessarily the firing unit) with a Line of Sight (see 11.3, Terrain Effects on Spotting) no more than three hexes in length (two intervening hexes) from the Enemy target hex to be able to use artillery fire in combat or interdiction against that hex.

[13.0] CHARTS & TABLES [See separate sheet.]

[14.0] UNIT VALUES BY SCENARIO

GENERAL RULE:

The unit values (Attack Strength, Defense Strength, Movement Allowance, etc.) are not printed on the counters. This is due to the large variety of units needed to simulate the forces involved in the scenarios given in section 15.0. Each counter carries only the symbol of its general type (and an identity number) and the values that that unit has in the specific scenario in which it is being used are given on the separate 8½ x 11 tables and charts sheet. Examine this sheet before reading any further.

CASES: [14.1] Each unit type in a given scenario has five value numbers associated with it. Reading left to right on the value charts they are: Attack Strength-Hard; Attack Strength-Soft; Range (in hexes); Defense Strength; and Movement Allowance (in

[14.2] When an Attack Strength is shown in brackets [], this means that the unit uses the Hard Combat Results Tables when using that Attack Strength. When an Attack Strength is shown unbracketed, this means that the units uses the Soft Combat Results Tables when using that Attack Strength, Note that this bracketing has nothing to do with the type of target that the unit is firing at.

[14.3] When a Defense Strength is shown in FORCES: brackets, this means that the unit defends as a Russians [Alpha Player]: Command Control Hard Target. When the Defense Strength is Level 2

unbracketed the unit defends as a Soft Target. Note that whether or not a unit is a Soft or Hard Target has no bearing upon the Combat Results Table used by or against it: this is solely dependent upon the presence or absence of brackets on the Attack Strength being employed.

[14.4] The "H" (Heavy) and "L" (Light) codes printed on the units are not absolute values; they are simply a relativistic code to differentiate between two units of the same general type.

[15.0] THE SCENARIOS

And How to Set-Up and Start the Game GENERAL DESCRIPTION:

Combined Arms is actually six games in one. All six games share the standard set of rules and are differentiated by the information given in the six scenarios (i.e., situations). Basically, each scenario consists of an historical (or hypothetical) situation, a mix of opposing forces, and the objectives that the Players must achieve to win the game (Victory Conditions). Additionally, most scenarios use special rules that apply only to that particular situation. The scenarios are presented in increasing order of complexity.

If Players can not agree upon a particular scenario, they should roll a die (or pick a chit) and play the scenario indicated by that random number.

SCENARIO STRUCTURE: All scenarios follow the same basic pattern:

a. Scenario Number and Historical Title b. Terrain Mode (see Terrain Effects Chart) c. Alpha Player Nationality and Command Control

d. Alpha Player Forces available. Pictures of the unit types are shown with quantity numbers underneath each picture. See 14.0, Unit Values By Scenario, for the actual strengths of the unit types indicated. Note that the Alpha Player always

moves first. e. Bravo Player Nationality and Command Control Germans (Alpha Player): Set up within hex rows

f. Bravo Player Forces available. g. Deployment (how the forces are set up at the 6100 inclusive; Polish infantry in Rough Terrain is

start of the game). h. Game Length (maximum duration of the scenario in Game-Turns).

. Victory Conditions (how the Players determine the winner of that scenario).

j. Special Rules (rules which apply only to that specific scenario).

SPECIAL LINE OF COMMUNICATIONS CONSIDERATION:

In some scenarios, units must be able to seize an objective and trace a Line of Communications to a Friendly map edge. A Line of Communications is defined as a continuous line of hexes (no matter how long or meandering) traced from the unit to the Friendly map edge. This line must be free of Enemy units or Zones of Control throughout its entire length. When calculating the interruption of a Line of Communications, the presence of other Friendly units negates the effect of Enemy Zones of Control in the hex that Friendly unit occupies. Friendly units which cannot trace a Line of Communications (when it's called for) do not count for Victory Condition fulfillment

[15.1] INTRODUCTORY SCENARIO Nr. 1 RUSSIA, 24 APRIL, 1944 [Hypothetical] TERRAIN MODE: MIXED

Germans [Bravo Player]: Command Control

DEPLOYMENT: Russians set up and move first.

Russians: (Alpha Player): Set up within three hexes of 2833.

Germans (Bravo Player): Set up within three hexes of 4601.

GAME LENGTH: 16 Game-Turns

VICTORY CONDITIONS: The Player with more undisrupted units within two hexes of hex 3214 at

SPECIAL RULES: Friendly map edge for the Alpha Player is defined as any hex ending with the numbers 33 or 34: for the Bravo Player, the Friendly map edge is defined as any hex ending with the number 01.

[15.2] SCENARIO Nr. 2. DEFENSE OF THE VISTULA BRIDGES ALONG THE LINE TCZEW, 2 September, 1939

TERRAIN MODE: OPEN Germans [Alpha Player]: Command Control

Polish [Bravo Player]: Command Control

DEPLOYMENT: Poles set up first, Germans

Poles (Bravo Player): Set up within rows 1300 and

always considered to be in Improved Positions. GAME LENGTH: 12 Game-Turns VICTORY CONDITIONS: To achieve a Marginal

Victory, the Germans must have (at the end of the scenario) undisrupted units (excluding truck and/or Armored Personnel Carriers) with a Line of Communication to the 0100 map edge, adjacent to at least one of the bridges on hex rows 4600 through 5300; to win a Substantive Victory, two bridges: for a Decisive Victory three brodges. Should the Germans have units adjacent to all three bridges, but no Line of Communication to at least one of the units, the result is a draw. If one (or more) bridge(s) has no German units adjacent to it and the other(s) has no German units adjacent to it with a Line of Communications, the result is a Polish victory

SPECIAL RULES: All German infantry start the scenario mounted on trucks. The Friendly map edge for the Alpha Player is defined as any hex in the 0100 row of hexes; the Bravo Player does not require a Friendly map edge.

[15.3] SCENARIO Nr. 3, PROCHOROVKA, 12 July, 1943 TERRAIN MODE: OPEN

FORCES:

Germans [Alpha Player]: Command Control

FORCES:

Russians [Bravo Player]: Command Control FORCE "EAST"

FORCE "WEST"

DEPLOYMENT: Germans set up first and move

Germans (Alpha Player): Enter anywhere on 0100 hex row within a ten hex front. Germans do pay entry cost of first hex. Russians (Bravo Player): Bravo Force "East"

enters anywhere on row 6100 within a ten hex front on Game-Turn four. Bravo Force "East" does pay entry cost of first hex. Bravo Force "West" starts the scenario deployed between hex rows 0800 and 3100 inclusive. Note that Bravo Force "West" deploys before the Germans enter the map. GAME LENGTH: 12 Game-Turns

VICTORY CONDITIONS: The Russian Player wins if he can destroy more than seven German units (excluding APC's). The German Player wins if he can exit, before the last Game-Turn of the scenario, eight units (excluding APC's) from the 6100 mapedge. Any other result is a draw.

SPECIAL RULES: Russian infantry in Rough Terrain is considered to be in Improved Positions. German infantry starts the scenario mounted in APC's. There is no Command Control Determination Pahse for either Player for the first Game-Turn.

[15.4] SCENARIO Nr. 4. ARRANCOURT TANK BATTLE, 19 September, 1944

TERRAIN MODE: MIXED Americans [Alpha Player]: Command Control

x3 x1 x8 x1 x2 x7 x1

Germans [Bravo Player]: Command Control x3 x1 x1 x9 x2 x9

DEPLOYMENT: American deploy and move first. Americans (Alpha Player):: Deploy within four hexes of hex #4210.

Germans (Bravo Player): Deploy within two hexes of hex #5519.

GAME LENGTH: 6 Game-Turns

VICTORY CONDITIONS: The Player with the greatest number of undisrupted units (excluding trucks and APC's) with a Line of Communication to the respective map edge, on or adjacent to the road between hexes #4414 and #5018 (inclusive) wins the scenario.

SPECIAL RULES: The Americans receive one Air Strike on Game-Turn 4. All infantry start the scenario mounted in vehicles. For the Alpha Player, the Friendly map edge is defined as any hex on the 0100 hex row; for the Bravo Player, the Friendly map edge is defined as any hex on the 6100 hex row.

[15.5] SCENARIO Nr. 5, BATTLE OF THE CHINESE FARM, 15 October, 1973 TERRAIN MODE: OPEN

FORCES: Egyptians [Alpha Player]: Command Control ALPHA FORCE "NORTH"

VICTORY CONDITIONS: The US must have at least two undisrupted units each on or adjacent to hexes #2017 and #2315. If only one hex meets these conditions, the game is a draw; if none do, the ALPHA FORCE "SOUTH" Chinese win.

GAME LENGTH: 16 Game-Turns

US units that suffer from Loss of Command

the Command Control Phase.

require a Friendly map edge.

Control while in Enemy Zones of Control

Alpha Force "South" infantry start the scenario

The Friendly map edge for the Alpha Player is the

6100 row of hexes; the Bravo Player does not

Units that are Disrupted do not suffer from the

efects of Loss of Command Control. This means

they lose Command Control in Chinese Zones of

should advance rather carefully, screening his

armor with infantry. This will go far in protecting

Russian tanks from Overrun Attacks and will give

HISTORICAL NOTES: None (scenario is

The Poles have the disadvantage of being

outclassed in every type of weapon system and by

Working in their favor is their large number of

infantry units, terrain, the Game Length and the

fact that they know where the Germans must go.

The Polish Player should block all the passes with

infantry; they will be in Improved Positions and

can go a long way in delaying the Germans. It is

not a bad idea to place an anti-tank gun unit near

Combat Results Table. This will make the

Germans cautious about forcing the passes. The

Germans are also pressed for time and will have to

make them extremely vulnerable to artillery

attacks. However, because of the High Command

Control Level of the Poles, they must have a

Friendly unit within three hexes of the target.

Infantry units can be used for this purpose as wel

as armored reconnaissance units. As for the Polish

tanks, they are weak; protect them at all times.

Remember that you outnumber the Germans and

that the Germans are pressed for time. Trade

keep their infantry mounted in trucks; this will

the infantry to use the anti-tank gun's Hard

having a Command Control Level of four.

[16.2] NOTES FOR SCENARIO Nr. 2

Overruns of his own.

[Vistula Bridge]

PLAYTEST NOTES:

hypothetical).

Control if they are already Disrupted.

mounted in Armored Personnel Carriers.

(including interdiction) automatically suffer a

x3 x6 x1 x6 SPECIAL RULES: Chinese infantry in Rough Terrain are always considered to be in Improved Israelis [Bravo Player]: Command Control Alpha Force "Center" cannot move until Alpha

Level 1 Force "South" has four Disrupted units on the board at one time.

DEPLOYMENT: Egyptians set up and move first. Egyptians (Alpha Player): Force "North" sets up "D1" result. This "D1" result is applied during within four hexes of hex #3501; Force "South" sets up within four hexes of #3934.

Israelis (Bravo Player): Set up within three hexes of 3214, 4314, or 5108. They may be divided between these three areas, but at least one unit must be placed with each of the areas.

GAME LENGTH: 8 Game-Turns

VICTORY CONDITIONS: The Egyptians must that US units do not suffer further Disruption if have at least three undisrupted units on or adjacent to the road between 3214 and 5219 inclusive, at the end of the game. If the Egyptians have one or two undisrupted

combat units on or adjacent to the road at the end of the scenario, the result is a draw; if they have no [16.0] GAME NOTES combat units on or adjacent to the road at the end [16.1] NOTES FOR SCENARIO Nr. 1 [Russia '44] of the scenario, the result is an Israeli victory. SPECIAL RULES: The river that runs 4601-5213-PLAYTEST NOTES: 4926 may only be crossed at the ford at 5219/5320 The Germans have a slight edge in this scenario (treat it as a bridge). Hexes 4830-33 and 4929-33 because of a lower Command Control Level and slightly better tanks. This advantage in tanks is are considered water and no units may ever enter

rticularly important because the German can Israeli infantry in Rough Terrain are considered in Overrun Russian tanks at 4-1 odds while the Russian tanks Overrun German tanks at only 3-1 Improved Positions. odds. This can be an important edge when a

All infantry start the scenario mounted in vehicles. general melee occurs. For the Alpha Player, the Friendly map edge is defined as any hex ending with the numbers 01, 33, The Russians have a definite advantage in or 34; the Bravo Player does not require a Friendly infantry. They are strong enough so that they are extremely difficult to destroy. The Russian Player

[15.6] SCENARIO Nr. 6. the Russians an opportunity to perform Wave HEARTBREAK RIDGE, 13 September.

TERRAIN MODE: CLOSED

US [Alpha Player]: Command Control Level 3 ALPHA FORCE "SOUTH"

ALPHA FORCE "CENTER"

ALPHA FORCE "NORTH"

Chinese Bravo Player: Command Control Level 2

within 2 hexes of #3131; Alpha Force "Center"

DEPLOYMENT: US (Alpha Player): Alpha Force "South" deploys

deploys within two hexes of #4416; Alpha Force "North" deploys within 5 hexes of hex #4216. Chinese (Bravo Player): Deploys on any Rough Terrain hex in between hex rows 0300 and 3000 possible. Whenever there is an opportunity to salient from Prochorovka ridge. The Germans had

of Communications. It does no good to seize the

bridges and not have a Line of Communications.

[16.3] NOTES FOR SCENARIO Nr. 3

The Germans have a big advantage in firepower

map as a consolidated force that must quickly

punch through Russian defenses and reach across

to the end of the map with as few losses as possible.

through immediately and then guard the flanks of

The Russians have the problem of being

out-classed in firepower and Command Control.

However, time is all on their side. With Force

"West", the Russians should attempt to delay the

Germans at all costs. Probably, Force "West" will

suffer heavy casualties, but it is worth the cost if it

his convoy with his armored units.

The major problem confronting the Germans is

[Prochorovka]

PLAYTEST NOTES:

This will necessitate leaving some forces, generally

losing one of your own.

The Germans have the advantage of a good Command Control Level and firepower; they have [Arrancourt] the disadvantage of time and numerical inferiority PLAYTEST NOTES: The German Player should concentrate his forces, spearheading with his armor, and drive right through the Poles. Although the Poles have a large force, it is not very mobile and they will be hardpressed to stop any sort of major breakthrough. One thing to beware of is the vulnerability of your mounted infantry. Polish artillery will be able to slaughter them unless the German Player can keep Polish units away from the trucks. Armored reconnaissance units are quite helpful for this purpose. One further point The Germans have an armored force that is hard for the German Player to keep in mind is the Line to stop if it ever can take the iniative. However,

tanks, in the rear to protect this line. HISTORICAL NOTES: The Germans were attacking from East Prussia and wanted to seize the bridges on a tributary of the Vistula to advance towards Warsaw. The Poles wanted to hold the bridges intact so that their troops in the Polish Corridor might escape. The Germans found their initial forces inadequate to take all the bridges on the day in question.

Panzer Corp attempted a counter-attack with a Kampfgruppe built around the 13th Panzer Grenadier Regiment, againt the vanguard of the US Third Army (Combat Command "A" of the and in Command Control. The Germans enter the 4th Armored Division). This was the first organized resistance the Americans had encountered since Normandy. The battle became a mobile action between tanks and infantry groups which superior American artillery and air power decided.

[16.5] NOTES FOR SCENARIO Nr. 5 [Chinese Farm] PLAYTEST NOTES:

Despite their numerical inferiority, they must nmediately take the iniative and go after the Egyptians as soon as the game starts. Utilizing superior Israeli range, firepower and Command Control, the Israeli Player should attempt to inflict heavy damage upon the Egyptian forces before they close on the road. Once the two separate Egyptian forces meet, the Israeli Player is in trouble — there are simply too many of them to be

delays the Germans until Russian reinforcements arrive. Should the German Player expose any Soft Target, it is worth sacrificing an anti-tank gun unit or infantry unit to get it. By the time Force "East" arrives, the Germans have probably already broken through the initial defense line. Force "East" should then attempt to inflict as the scenario many casualties as possible on the Germans, regardless of its own losses. German infantry mounted in trucks are particularly vulnerable to any sort of attack. The artillery unit can be useful in destroying them. Russian armor should Overrun whenever possible to offset their inferior firepower.

HISTORICAL NOTES: The German SS Panzer Corps broke through the Russian MLR near Prochorovka. The Russians interposed and anti-tank screen between the German vanguard while they assembled their reserves. The Germans. when they had finally broken through the A/T screen (which took time, as the infantry had to take the positions on foot), the Russians had counterattacked. In a close-range armor battle, the Russians withdrew after an afternoon of fighting. leaving the surviving Germans in possession of the

territory for time; hold the German up as long as field and with a wonderful view of the Kursk eliminate a German unit, do it even if it means too few men left to exploit their "victory" and

16.41 NOTES FOR SCENARIO Nr. 4

The Americans have an opportunity at the start of the scenario that will never come again. As the German infantry starts mounted in trucks, they are excellent targets for American artillery. This will have the effect of denying the Germans a certain amount of support that they will need to carry through their seizure of the road. The Americans will usually seize the road first and then must fight a delaying action to hold the objective.

Command Control problems make this difficult As the Germans will be operating under a severe time restriction, the German Player must attack as quickly as possible, even if it means going into an attack understrength. He should make use of his armored reconnaissance unit. While it will be of little use offensively, its high Defensive Strength makes it extremely valuable for taking and holding the objective. Also, its Zone of Control, when behind American Lines, makes it extremely difficult for the American Player to regroup his forces or offer effective resistance to a German

HISTORICAL NOTES: The German XLVII

time. The German Player must break through the initial Russian defense line as rapidly as possible and head for the end of the map before Russian reinforcements can be brought up to form effective resistance. He must not stop to destroy all the Russian defenses at the beginning. He must break The Israelis are faced with a pincer attack against

> effectively challanged. The Israeli Player must stop the Egyptians piecemeal. The Israeli Player, however, must beware of his own losses. He is so outnumbered that the loss of even one unit can mean the difference between winning and losing

time. All the Egyptian Player has to do is rush the position and occupy it during the last Game-Turn. Unfortunately, the Israeli Player will object to this. Remember, though, that the Israelis simply don't have the forces to be everywhere at once: they can be overwhelmed. A good order of battle advantage that the Egyptians have is their infantry. They are strong enough that the Israelis will have a difficult time destroying them if they are dismounted. In the first Game-Turn, the Egyptians should bring their infantry up, mounted in Armored Personnel Carriers. They should dismount during the second Game-Turn and advance during the third Game-Turn. While this is being done the Egyptians should cause as much trouble as

possible with their armored forces. Although Egyptian tanks are quite inferior to Israeli armor. the Israelis cannot afford to ignore them. The Egyptian forces are going to suffer severe losses; accept this as a fact. However, if you can trade these losses for time, or better yet Israeli losses, you will come out ahead. Never miss an opportunity to

destroy Israeli units. HISTORICAL NOTES: This action represents the Egyptian attempt to cut off the Israeli bridgehead over the Suez Canal. The action occurred on the Asian side of the canal. The Egyptians were repulsed with heavy losses on both sides. The battle gets its name from a nearby Japanese agricultural station which the Israelis erroneously referred to as the "Chinese Farm".

16.61 NOTES FOR SCENARIO Nr. 6 [Heartbreak Ridge] PLAYTEST NOTES:

The American Player has superior infantry, some armor and plenty of artillery support. However, the Chinese have better Command Control and have the benefit of defending from Improved Positions. The American Player must attempt to release Force "Center" as soon as possible. This will often mean that the US will have to intentionally take casualties in Force "South". He should immediately engage the Chinese and let Chinese resistance and the special Command Control rules do the rest. This will release Force "Center" and allow for a two-pronged attack against the Chinese positions. For the American Player, this scenario truly lives up to the name of the game -Combined Arms. He must move up to the Chinese unit to be attacked, hit it with infantry, support it

with artillery to increase the odds, and use armor

to take advantage of the Hard Combat Results

The Chinese Player has advantages of interior lines

of communication, numerical superiority and better Command Control. Remember that your objective is to hold a specific position, not to inflict casualties on the American Forces. In fact, this can actually be detrimental because it will mean the release of the American Force "Center". The Chinese have four artillery units, two light and two heavy, that can be of help. The heavy artillery a vital road that they must hold at all costs. should be directed at the American artillery in an effort to cut down on the support that the American Player can give to his attacks. The light artillery generally does not have sufficient range to reach the American artillery. However, using the light artillery for interdiction purposes in Clear Terrain can have the effect of slowing and channeling the American advance. It is also extremely useful for destroying Disrupted units.

HISTORICAL NOTES: This was one of several battles that occurred around what has come to be alled "Heartbreak Ridge" during the Korean War, U.S. Forces (the 2nd Division) attempted to take Heartbreak Ridge from Communist Chinese defenders. After heavy fighting with severe casualties, the American Forces withdrew in poor The Egyptians have two advantages that they must utilize to the utmost: numerical superiority and

> [17.0] DESIGN CREDITS Game Design: James F. Dunnigan Physical Systems Design and Graphics: Redmond A. Simonsen

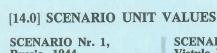
Rules Construction: Christopher Allen, Kevin

Proof-testing: Omar DeWitt, John Heydt Physical Production: Manfred F. Milkuhn, Roger

Game Development: Christopher Allen with Edward Curran

Research: David C. Isby, James F. Dunnigan

There are four possible types of Combat Results.



SCENARIO Nr. 1, Russia, 1944 Terrain Mode: Mixed ALPHA (Russians, CCL: 2)

[4] [10] 4 [4] 12 1 8 1 8 3 1 10 27 1 10

Attack Strength, Hard
Attack Strength, Soft
Range
Defense Strength
Movement Allowance

BRAVO (Germans, CCL: 1)

ALL SCENARIOS, ALL FORCES

Rough #2

River

Trail

Ford

0 0 0 1 10

8MP

+4MP

2MP

+1MP

x4

x2

na

na

SCENARIO Nr. 2, Vistula Bridges Terrain Mode: Open

ALPHA (Germans, CCL: 2)

| [4] [10] 4 [4] 10 | [2] [10] 2 [2] 10 | [2] 1 8 1 [8] 10 | [3] 1 5 1 5 3 | [4] 1 10 27 1 10 | [5] [2] [10] 2 1 10

BRAVO (Poles, CCL: 4)

L [2] [10] 2 [2] 10

☐ 1 1 1 [1] 10

☐ 1 4 1 4 3

H 1 10 27 1 10

L 1 10 20 1 10

☐ [2] [10] 2 1 10

Rough #2

River

Trail

Ford

SCENARIO Nr. 3, Prochorovka Terrain Mode: Open

ALPHA (Germans, CCL:1)

H [6] [10] 6 [6] 11 □ [5] [10] 5 [5] 10 □ [3] [10] 3 [3] 10 □ 1 6 1 6 3 H 1 10 30 1 10 □ 1 10 27 1 10 □ [5] [10] 5 1 10

BRAVO (Russians, CCL: 3)

0 0 0 [1] 10

[3] [10] 3 [3] 12 [5] [2] [10] 2 [2] 12 [7] 1 8 1 8 3 [8] 1 10 13 1 10 [8] [3] [10] 3 1 10

x3

x2

na

na

5MP

+2MP

1MP

+1MP

SCENARIO Nr. 4, Arrancourt Terrain Mode: Mixed

ALPHA (U.S., CCL: 1)

BRAVO (Germans, CCL: 3)

SCENARIO Nr. 5, The Chinese Farm Terrain Mode: Open

ALPHA (Egyptians, CCL: 3)

 Image: Bold of the content of the

[11] [10] 11 [11] 12

1 10 27 1 10

1 8 1 8

0 0 0 [1] 10

 \bowtie

2MP

+1MP

na

+1MP

Rough #2

River

Trail

Ford

x2

x2

na

na

Bridge

SCENARIO Nr. 6, Heartbreak Ridge Terrain Mode: Closed

ALPHA (U.S., CCL: 3)

BRAVO (Israelis, CCL: 1) BRAVO (Chinese, CCL: 2)

1 2 1 2 4 1 1 10 20 1 3 1 10 13 1 3

(a)

NOTES: MP = Movement Point Cost

(a) = Bridge negates River crossing cost

* In the OPEN MODE, Rough #1 is

na = not applicable; no effect

treated as Clear Terrain.

na

											_			
[13.1] TERRAI Terrain Feature In	N EFFECTS Of Movement Point Cost to Enter or Cross Hexside	CHART Multiplying Effect on Unit's Defense Strength	TERRAIN (Clear	Rough #1	Rough #2	Roa	d	Trail	River	For	d Bri	dge	Lake
CLOSED MODE			MIXED MO	ODE		URBAN MODE (optional)			OPEN MO	DE		ALL MODES		
Clear	2MP	x1	Clear	1MP	x1	Clear	1MP	x1	Clear	1MP	x1	Road	1MP	na
Rough #1	4MP	х3	Rough #1	2MP	ж2	Rough #1	2MP	x2	Rough #1	1MP	x1	Improved Position	na	x2

Rough #2

River

Trail

Ford

2MP

+2MP

1MP

+1MP

x4

x2

na

na

COMBINED ARMS CHARTS & TABLES

Whatever the table used, attacks and Overruns at less than one-to-one odds are not permitted; odds higher than ten-to-one are treated as ten-to-one.

[13.2] HARD ATTACK STRENGTH COMBAT RESULTS TABLES (used by Tanks, Assault Guns, and Anti-Tank Units) [13.21] CLEAR TERRAIN, Hard Attack Strength Combat Results Table									[13.3] SOFT ATTACK STRENGTH COMBAT RESULTS TABLES (used by Infantry, Artillery, Recon, and Air Strikes) [13.31] CLEAR TERRAIN, Soft Attack Strength Combat Results Table											ble				
Die Roll	1-1	OI 2-1	DDS [A 3-1	Attack :	Strengt 5-1	th to D 6-1	efense 7-1	Streng 8-1	7th] 9-1	10-1	Die Roll	Die Roll	1-1	01 2-1	DDS [A	Attack 4-1	Strengt 5-1	th to D 6-1	efense 7-1	Streng 8-1	gth] 9-1	10-1	Die Roll	
1	3	D1	D2	D3	De	De	De	De	De	De	1	1	2	3	3	3	D2	D3	D3	D3	D3	D3	1	
2	2	3	D1	D2	D3	De	De	De	De	De	2	2	1	2	2	3	D2	D2	D3	D3	D3	D3	2	
3	2	3	D1	D2	D3	De	De	De	De	De	3	3	1	1	2	2	D1	D2	D2	D3	D3	D3	3	
4	1	2	3	D2	D3	De	De	De	De	De	4	4	•	1	1	2	3	D1	D2	D2	D2	D3	4	
5	1	2	3	D1	D3	De	De	De	De	De	5	5	•	1	1	1	3	D1	D1	D1	D2	D2	5	
6	•	1	3	D1	D2	D3	De	De	De	De	6	6	•	•	1	1	3	D1	D1	D1	D1	D1	6	
[13.22]	[13.22] ROUGH #1, Hard Attack Strength Combat Results Table [13.32] ROUGH #1, Soft Attack Strength Combat Results Table																							
Die Roll								Streng			Die Roll	Die Roll								Streng			Die Roll	
Коп	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1	Kon	Kon	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1	KOH	
1	2	3	D1	D2	D3	D3	D3	D3	De	De	1	1	2	3	3	3	D1	D2	D2	D3	D3	D3	1	
2	2	2	D1	D1	D2	D2	D3	D3	D3	De	2	2	1	2	2	3	3	D1	D2	D2	D3	D3	2	
3	1	2	3	3	D1	D2	D3	D3	D3	D3	3	3	1	1	2	2	3	D1	D1	D1	D3	D3	3	
4	1	2	3	3	D1	D2	D2	D3	D3	D3	4	4	•	1	1	2	3	3	D1	D1	D2	D3	4	
5	•	1	2	2	3	D1	D1	D2	D2	D3	5	5	•	1	1	1	3	3	3	3	D2	D2	5	
6	•	•	2	2	3	D1	D1	D1	D2	D2	6	6	•	•	1	1	2	3	3	3	D1	D1	6	
[13.23] ROUGH #2, Hard Attack Strength Combat Results Table [13.33] ROUGH #2, Soft Attack Strength Combat Results Table																								
Die		OI	DDS [A	Attack	Strengt	th to D	efense	Streng	th]		Die	Die		OI	ODDS [Attack Strength to Defense Strength] Die									
Roll	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1	Roll	Roll	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1	Roll	
1	1	2	2	2	3	3	3	De	De	De	1	1	1	2	2	2	3	3	3	3	3	3	1	
2	1	1	1	2	2	3	3	.3	De	De	2	2	1	1	1	1	2	2	3	3	3	3	2	
3	1	1	1	1	± 2	2	3	3	3	De	3	3	•	1	1	1	2	2	2	3	3	3	3	
4	•	1	1	1 .	2	2	2	3	3	3	4	4	•	•	1	1	1	2	2	2	3	3	4	
5	•	•	1	1	1	2	2	2	3	3	5	5	•	•	•	1	1	2	2	2	2	3	5	
6	•	•	•	•	•	1	2	2	2	3	6	6	•	•	•	•	•	1	2	2	2	2	6	

For explanation of Combat Results Tables see 9.0.

