Notes			AP	CF				SC		FT		BT	DOZ
HE	15	20	40	50	60	70	75	80	94	105	120	150	200
GF I FRAG	1	2	4	6	8	10	14	20	24	30	36	40	50
1	C1	C2	C2	C3	C3	C4	C5	C6	C6	C7	C8	C9	C11
2	C1	C1	C2	C2	C3	C3	C4	C5	C5	C6	C7	C8	C10
3	C1	C1	C1	C2	C2	C3	C3	C4	C5	C6	C7	C8	C9
4	-	C1	C1	C1	C2	C2	C3	C3	C4	C5	C6	C7	C8
5	-	-	C1	C1	C1	C2	C2	C3	C3	C4	C5	C6	C7
6	-	-	-	-	C1	C1	C2	C2	C3	C3	C3	C4	C6
7	-	-	-	-	-	C1	C1	C1	C2	C2	C2	C3	C5
8	-	-	-	-	-	-	C1	C1	C1	C1	C2	C2	C4
9	-	-	-	-	-	-	-	C1	C1	C1	C1	C1	C3
0	-	-	-	-	-	-	-	-	C1	C1	C1	C1	C2

C3: FLAMETHROWER VS. VEHICLES AND H WEAPONS								
Vehicle	DR							
AFV	4*							
APC	6*							
Truck	9*							
H Weapon	6							
* Do not apply AF	-							
DR ≤ # results in a burning wreck or elimination of the H Weapon								

GA: GRENADE ATTACK TABLE											
Frag	Туре	Notes									
3	Grenade	Per Stacking Point									
20	Satchel Charge	20 GF on Casualty Table									
+4	Gammon	Add to Grenade Attack value									
* Subject to Hu	* Subject to Hurl Back and may create Rubble/Flame										
** 2R shift for E	ingineers and may cre	eate Flame									

C2: INDIRECT HE FFE BOMB Target Type	M-Kill	F-Kill	K-Kill	Burn
AFV	C3	C4	C5	C6+
APC	C3 (roll	for both)	C4	C5+
Truck	C2 (roll for both	n if Gun Armed)	C3	C4+
H Weapon	-	C3	C4+**	-

APC	C3 (roll for	both)	C4	C5+						
Truck	C2 (roll for both if	Gun Armed)	C3	C4+						
H Weapon	-	C3	C4+**	-						
Find the Casualty Table (F2) result in the Target Type row to determine the result at the top of each column.										
If the regult is an M or E Kill roll on those tables	to dotormine the	final regult **	LI Moonon io	aliminated						

If the result is an M-or F-Kill, roll on those tables to determine the final result. ** H	-

C6: SMALL ARMS (GF) VS. VEHICLES AND H WEAPONS											
Target Type	M-Kill	F-Kill	K-Kill	Burn							
AFV	-	-	C1+ = S	-							
APC	-	-	C1+ = S	-							
Truck	C1	-	C2-3	C4+							
H Weapon	-	C8+*	-	-							

Find the Casualty Table (F2) result in the Target Type row to determine the result at the top of each column. S: Roll on Supression Table (D3) using C# as modifier. * Roll on F-Kill Table (D1) on C8+ row.

		HE I FRAG								
Target Type	Remove	Rubble	Flame	Flame						
Building	-	C5	C6+*	C6+*						
Bunker I Blockhouse	C6+	-	-	-						
Flame Terrain	-	-	-	C6+*						
Sanger	C4+	-	-	-						
Cave Dugout	C9+	-	-	-						
* A subsequent die ro	ll of 1-3 needed t	o place a Flame i	marker.							

DT: DEMOLITION TABLE			
Target Type	Bangalore (40)	Dozer (50)	S Charge (20)
AT Trench Hexside Terrain	-	C6+	-
Hedgehog I Bunker I Cave	C6+	-	C6+
Wire I Roadblock I Mines	C5+	-	C5+
Rubble	-	C8+	-

Long Range	Gun Siz	e:		70-74	75+	70-74	75+	70-74	75+	70-74	75+	
Range	0-2	3-8	9-16	17-	-24	25-	·32	33-40		41	1+	
Α	9	8	7	5	7	4	6	3	5	-	3	
В	9	8	6	4	6	3	5	2	4	-	2	
С	9	7	5	3	5	2	4	1	3	-	1	
D or LIATR	9	7	4	2	4	1	3	-	1	-	1	
Cumulative HPT Die Roll Modifiers												
Moving Vehic				OW Ver	nicle I H	Weapon	I Final I	Defensiv	e Fire		+2	
Assault Fire \											+5	
Personnel As		e L I AT	or L I Al	R I Airc	raft Can	non					+3	
Burst on Targ								-3	and 2 x	remainii	ng ROF	
Non H-D Vehicle target presents FLANK facing to firing unit -1												
Vehicle Target Size Modifier (see TS Table) +1 I +2 I -1												
Terrain Cover State +1 per 1L												
Obscuring Te	rrain I W	reck I F	FE along	LOS							1 per 1L	
Smoke									+4 per	HEX alo	ng LOS	
Elite Tank Co		~									-1	
Firing vehicle											+2	
Covered Arc				A or Gu	n CA Ch	nange) +	1 +2	+3 and +	-1 per he	exside the	ereafter	
AP vs. unit ur											+4	
APCR or APE								+2 +		ditional		
Squad HPT u			leavy we	eapon					+1	+2 and F		
On Board Firi											-2	
Running I Ass	sault Mo	ving Per	sonnel ta	arget							-2 -1	
Overstacked										cle or H		
Aerosols								+	-4 +2	+1 per 10		
Pre '43 Russi											+2	
Volkssturm/Conscript Personnel use of Medium I Heavy Weapon +2												

— A3: LIAT	HIT PROBABILI	ΓΥ	TABLE (S	CW ar	nd LIATR i	use A	1)
Range		0	1	2	3	4	5+
To Hit #		9	7	5	4	3	2

A2. MACHIN	IE GIIN I	HIT PRO	RARII I	TV TAR	I E						
A2: MACHINE GUN HIT PROBABILITY TABLE											
Range	0-1	2-3	4	5	6-7	8+					
	٠.		7	v	0 1	٠.					
To Hit #:	۵	7	5	1	3	2*					
	9	,	<u> </u>	-	J						
* to normal maximum range.											
l to nonnai n	iaxiiiiuiii	range.									

- 1-5 6-9 0 ve Hull-l	Turret Upper Hull Lower Hull Track Down DRM:	٠,
6-9 0	Lower Hull Track	٠,
0	Track	(LH)
•		
ve Hull-l	Down DRM:	
	DOWN DINN.	
Target		-3
get		-1
get		+1
II Target		+2
ON DEG	TRUCTION.	
֡	get get II Target	get get

Guii Size	Pelletration
12.7	0
15	1
20	1
37	2
50	2
57	2
75	3
76	3
88	4
90	5
100	5
150	6
200	7
Pen x 2 vs. AP	C Truck Type Vehicles

HE: HE PENETRATION TABLE

C1: K-KILL TAB	1 =													<u> </u>
Attack Type)LE	APIA	PCR I	APDS	I HEAT	ISCV	V				HE			
Result	-1	0	+1	+2	+3	+4	+5 >	-1	0	+1	+2	+3	+4	+5 >
Poss K-Kill	1	3	4	5	6	7	9	1	2	3	3	4	5	6
K-Kill	-	2	3	4	5	6	8	-	1	2	2	3	4	5
Burn	-	1	1	2	2	3	4	-	-	1	1	2	3	4
+1 to Burn va	+1 to Burn values when Rear Aspect targeted. Check for Suppression on all NON K-Kill results.													

→	D1: F-KILL TABLE		
	Firing Unit	DI	J
	HPT F-Kill	4	
	C8+ GF F-Kill	1	
	TUR aspect or UH fo	r SP C	ìun

1-2 3-4 5-8 9-0

•	D2: M-KILL TABLE	
	Aspect Hit or Attack Type Indirect HE or Track Hit	M-Kill
	Indirect HE or Track Hit	7
	Upper Hull Aspect (UH) Overrun vs. Heavy Weapon	3
	Overrun vs. Heavy Weapon	1

D3: SUPPRESSION TABLE						
Gun Size	Die Roll	Removal				
≤49mm	5	Morale				
50+mm	7	Check				
75+mm TUR	Auto	APC: ML '7'				
C# Result*	#	for all				
*DR ≤ C# = Supp						
Flite Tank Comm	ander DRM	⊥1				

TP: ATTACK RESULTS VS. TRA	TP: ATTACK RESULTS VS. TRANSPORTED PERSONNEL						
Direct Fire K-Kill (Burn)	All Personnel	and anny carried weapons are eliminated.					
Direct Fire K-Kill (non-Burn)	Apply HE or AP FRAG, then unload in hex and take Morale Check.						
Indirect Fire K-Kill	All Personnel and anny carried weapons are eliminated.						
Casualty Table Fire	Tank Riders: Assault Cover						
APC: Good or Full Cover (indicated on vehicle unit)							
	Others:	Stationary Cover					

E: BAIL OUT TABLE							
1-6	7	8-0					
-	Bail Out!	Bail Out!					
-	-	Bail Out!					
+1 DRM if Command Tank already K- or M-Killed							
	1-6 - -	1-6 7 - Bail Out! 					

PK: POSSIBLE	K-KILL RESULTS MATRIX	
Vehicle Type	Aspect I Facing	Result
Tank	UH I Front or Rear	Roll for M-Kill; Fail = K-Kill
Tank	Turret I Flank or Rear	Immediate K-Kill
Tank	Turret I Front	Roll for F-Kill; Fail = K-Kill
Tank or SPG	LH I All Facings	Immediate K-Kill
Tank or SPG	UH I Flank	Immediate K-Kill
SPG	UH I Front	Roll for M- and F-Kill; Fail both = K-Kill
SPG	UH I Rear	Roll for M-Kill; Fail = K-Kill
APC	All Hits	Immediate K-Kill
Truck	All Hits	Immediate K-Kill

ME: MELEE TA	ME: MELEE TABLE									
Per	Personnel vs. Personnel Melee Odds Ratio (MV = Gun Factors)									
DR	1 to 2	1 to 1	3 to 2	2 to 1	3 to 1	4 to 1				
1-2	DC2	DC2	DC2	DC3	DC3	DC4				
3-4	AC1 I DC1	DC1	DC2	DC2	DC3	DC3				
5-6	AC2 I DC1	AC1 I DC1	DC1	DC2	DC2	DC3				
7-8	AC3	AC2 I DC1	AC1 I DC1	DC1	DC2	DC2				
9-0	AC4	AC2	AC2 I DC1	AC1 I DC1	AC1 I DC1	AC1 I DC2				
_				/						

	7.0-	7102	MOLIDOI	7.011001	7.011001	71011
	Personnel va.	Vehicle M	elee Results	(MV = Stack	ing Points)	
≤ 1/2 MV			K-KILL (Bur	ning Wreck)		
< MV		K-KILL (B	urning Wreck	if Gammon E	Bomb used)	
= MV			M-KILL (Rol	for Bail Out		
> MV			No E	Effect		
	Cur	nulative Me	elee Value (M	V) Modifiers	:	

> MV No Effect	
Cumulative Melee Value (MV) Modifiers:	
Courage OR leader with Courage	2 x MV
CT AFV or APC	1/2 MV
Moving Vehicle	1/2 MV
Officer I NCO	+2 +1
Satchel Charge Used I Gammon Bomb Used (not both)	+2 +1
All Attacking Personnel (and accompanying leader) have Morale 8+	+1
All Attacking Personnel (and/or accompanying leader) are Combat Engineers	+1

	SIZE RET DRIVI	
DRM	Color	Target Size
	Black	
+1	White	Small
+2	Red	Very Small

Die Roll

AP Hit HE Hit I FFE

FLOORPAN HIT LH aspect + subsequent DR of 1-2 = Underbelly Hit on Front/Rear when crossing Wall, Hedge, Bocage or exiting Sangar across hexside crossed by firing unit's LOS. Floorpan Hits treat AF for all AFVs as '1'

IS: INDIRECT FIRE VS. VEHICLE SHIFTS							
Target Type	Shift						
Lowest UH/TUR AF 4+	1L						
APC I OT AFV	1R						
Truck Type	2R						

DA: AFV VS. AIRCRAFT ATTACKS Armor Factor for Aircraft HPT Hit = LOWEST AF Halved (round down to minimum of zero)

C5: A	II-AIRCRAFI FIRE IABLE								
DR	Result								
1		Aircraft Eliminated							
2-3		Aircraft Driven Off							
4-0		+10 DRM to Accuracy							
0+		No Effect							
Rang	је	Weapon Type							
3		MIMG							
4		≤ 20mm HIAA							
8 37+mm HIAA									
+1 DF	RM	for Medium Machine Gun							

M: MORALE TABLE		
Unit	Modifier	Notes
Non Broken Friendly Units		
Each 3 SP (non-Marine) Personnel Unit	+1	
Each 3 SP Marine Personnel Unit	+2	
Each 2 SP Marine Personnel Unit	+1	
Each AFV	+1	
ONE Commissar	-	
ONE Officer	+2	
ONE NCO	+1	
Other Friendly Units		
ONE Surrendered 2+ SP Personnel Unit	-210	a, b
Enemy Units (including Broken)		
Each 3 SP Personnnel Unit	-1	
Each AFV	-1	С
Each Overrun	-4 -2	d, e, f
Banzai Charge	-4	
Situation		
Casualty Marker	-1	
In Minefield	-1	
In FFE Concentration	-1	
In Barrage FFE	-2	
In Hedgehog I AT Trench	+1	
Under Bunker	+2	
In Crossfire	-2	
Notes		
a) EACH currendered Italian unit	•	•

a) EACH surrendered Italian unit. b) Japanese, USMC, Finnish (8+ morale), Die Hard SS: 0. c) Ignore in Overrun hex.

d) Ignore -4 if under Foxhole or Hedgehog.
e) Ignore Overruns if under Blockhouse or Bunker.
f) Japanese, USMC, Finnish (8+ morale), Die Hard SS: -2.

TERRAIN CHART														
					Entry (Effects					
Terrain	Туре	Height	Cover	Personnel	Tracked	Half-Track	Wheeled	lm		Flam	AirB	H-D		Notes
Bamboo	В	+5	G	Crawl or Infil.	4	-	-	A	-	Х	х	-	Х	Roads and Paths through; No Foxholes allowed
Bocage	В	+10	IIF	2+CoT	4+CoT		-	В	-	-	-	X	Х	Full Cover; Floorpan hits possible
Bridge	S	+5*	l*		Move along r		•	-	-	-	-	х*	-	* Treat non-road hexsides as wall hexsides
Brush	0	+5	S	2	2	2	2	-	-	-	-	-	Х	
Building	В	var	GIIIM	2	2*	2*	-	Α	-	Х	-	-	Х	* Closed Top vehicles only
Cellar	S	-10	IIM	2				-	-	Х	-	-	Х	
Creek	LD	0 -10	SIG	2 + CoT 4	2 + CoT	2 + CoT	2 + CoT	Α	-	-	-	-	х*	
Crops I Elephant Grass**	0	+5	S	2	2	2	2		-	Х	-	-	Х	* Moving Cover 1L; ** No Running movement allowed
Debris	0	+5	G	2*	2	2	2	Α	-	-	х	-	Х	* No Running movement allowed
Deir	C	-5	G**	1 1+CoT	1 1+CoT	1 1+CoT	1 1+CoT	-	-	-	-	X**	-	1 + CoT when exiting; ** across contour
Embankment	В	+10	SIG**	1+CoT*	1+CoT*	1+CoT*	1+CoT*	BA		-	-	X**	-	* Or Road; ** from lower level
Factory	В	var	IIM	2	2* 2	2* 2	2*12	Α	-	Х	-	•	Х	* Entry hex no immobilization check.
Flame	0	+30	+4 4L	-	-	-	-	-	-	-	-	-	-	No unit may enter Flame location
Fort	В	+10	SII	Infil.	1	1	1	-	-	-	-	-	X	Units on rampart receive Improved cover
Graveyard	0	+5	G	2*	2*	2*	2*	A	-	-	Х	-	Х	* May use road; no Running allowed, unless using road
Hedge	В	+5	G	1 + CoT	1 + CoT	1 + CoT	1 + CoT	В	-	-	-	-	-	
High Wall	В	+10	l	Crawl or Infil.	Gate only	Gate only	Gate only	-	-	-	-	-	-	
Hillock	В	+5	G*	1 1+CoT	1 1+CoT	1 1+CoT	1 1+CoT	-	-	-	-	X**	-	* Good or H-D when adjacent (roll may be required)
Hill	В	+10**	G**	1 1+CoT	1 1+CoT	1 1+CoT	1 1+CoT	-	-	-	-	х*	-	* Good and H-D from lower unit; ** per level
Hill (Cliff)	В	var	G*					-	-	-	-	X*	-	* Good and H-D from lower unit
Hill (Precipitous)	В	³ +15 ∆	G**	4+CoT**	4+CoT	4+CoT	4+CoT	В	-	-	-	х*	-	* Good and H-D from lower unit; ** Winded may not Infil.
Jungle	В	+20	G	Crawl or Infil.	4	-	-	Α	-	Х	Х	-	Х	Roads and Paths pass through
Junkyard	0	+5	G	2*	2	2	2	Α	-	-	Х	-	Х	* No Running
Open Ground	С	+0	S	1	1	1	1	-	-	-	-	-	•	
Orchard	0	+10	S	1	1	1	1	-	-	-	-	-	Х	4 or more symbols affect entire hex
Palm Grove	0	+10	S	1	1	1	1	-	-	-	-	-	Х	Creates Blind Hexes from higher
Path	С	+0	-	-1*		other terrain in th		-	-	-	-	-	-	* -1 MP to move higher via Precipitous terrain
Pond	С	-10	S		enter unless Brid			-	-	-	-	-	•	
Railcars	В	+10	G	2	2	May no		Α	-	-	-	-	х*	* Personnel and L & M weapons only
Railroad	С	+0		1	1	1	1	-	-	-	-	-	-	May move along as if a road
Ravine	LD	+0 I -10	SIG	2+CoT 4*	2+CoT	2+CoT	2+CoT	Α	-	-	-	-	Х	* 4 MP to move into "Up" position; Good cover in "Up"
Razorback Ridge	В	+5	- 1	1+CoT	1+CoT	1+CoT	•	В	-	-	-	Х	-	Floorpan hit possible; automatic H-D
Rice Paddies	0	+5	S*	2	4	M-Kill	M-Kill	Α	-	Х	-	-	Х	treat as Crops for Personnel or Swamp for Vehicles
River	С	-10	-		enter unless Brid	-		-	-	-	-	-	-	River = blue 2+ hexes wide
Road	С	+0	-	-1* 1	Half	Half	Half	-	-	-	-	-	-	* -1 MP to move higher via Precipitous terrain
Rock Strewn	0	+5	G	2	2	2	2	Α	-	-	Х	х*	Х	* H-D on roll of "1-2"; only TURRETED may be H-D
Rubble	В	+5	GIIIM	2*	2**	May no		Α	-	-	Х	-	Х	* No Running movement; ** No Cross-Country movement
Sand Dune	В	+5*	1	2xCoT	2xCoT	2xCoT	2xCoT	A*	-	-	-	-	-	* +10 by SSR; Floorpan hits possible; Soft Sand
Scrub	С	+0	S	2	2	2	2	-	-	-	-	х*	Х	* H-D on roll of "1"
Shellhole	C	+0	G*	2	2	2	2	Α	-	-	-	-	-	* Non H weapons and Personnel only
Smoke	0	+30	+4 4L	1+CoT	1+CoT	1+CoT	1+CoT	-	-	-	-	-	-	+4 HPN DRM I 4L for each smoke hex along LOS
Soft Sand	С	+0	S	2	2	2	2	Α	Х	-	-	-	-	Vehicles and H Weapons may only be towed OUT
Steeple	В	+10*	-	-	-	-	-	-	-	•	•	-	-	2 SPs max; building location; +10 higher than highest level
Sunken Road Path RR	LD	+0 -10		2 Road 4	2 I Road	2 I Road	2 I Road	A	-	-	-	-	Х*	4 MP and "G" for "Up"
Swamp	0	+5	S	2*	4	M-Kill	M-Kill	Α	Х	-	-	-	Х	No Running; No H weapons
Track	C	+0	S	-1* 1	Half	Half	1	-	-	-	-	-	-	* -1 MP to move higher via Precipitous terrain
Wadi	LD	+0 -10	SIG	1*	11	2+CoT 1*	2+CoT 1*	Α	-	-	-	X***	Х	* End hex; ** Enter UP; *** Exit UP
Wall	В	+5	I	1+CoT	1+CoT	1+CoT	Gate only	В	-	-	-	Х	-	Possible Floorpan hits; automatic H-D
Water (Deep)	С	+0	S		enter unless Brid	<u> </u>		-	-	-	-	-	-	5 11 00D 1 11 11 11 11 11 11 11
Water (Ford)	С	+0	S	4	4	4	4	A*		-	-	-	-	Ford by SSR only; * Immobilization roll if Wading
Woods	В	+10	G	2	2	2	2	Α	-	Х	х	-	Х	Roads and Paths pass through
Woods (Forest)	В	+20	G	2	2	2	2	Α	-	Χ	х	-	Х	By SSR; Roads and Paths pass through
Wreck (Vehicle)	0	+5	G*	CoT	2xCoT	2xCoT	2xCoT	-	-	-		-	-	* From AFV/APC/non-burring wrecks
Wreck (Burning)	0	+30	+4 4L	1+CoT	1+(2xCoT)	1+(2xCoT)	1+(2xCoT)	-	-	-	-	-	-	Flame may not "spread" to hex
EMPLACEMENTS CHART														E1: COVER STATE EFFECTS TARI F

EMPLACEMENTS CHART														
					Entry Cost						ffects			
Emplacement	DRM	Height	Cover	Personnel	Tracked	Half-Track	Wheeled	lm	Cu	Flam	AirB	H-D	Hide	Notes
Anti-Tank Trench	+2 +3	-	HF	1		No Entry		-	-	-	-	-	-	Drop to FULL
Blockhouse	- I +3	-	-IF	1	CoT	CoT	CoT	-	-	-	-	-	-	6 Stacking Points MAX
Bunker	+2 +3	-	HF	1	CoT	CoT	CoT	-	-	-	-	-	-	3 Stacking Points MAX
Cave Dugout	- I +3	-	-IF	1	CoT	CoT	CoT	-	-	-	-	-	-	Only Japanese UNDER
Foxhole	- l +1	-	- I G	1	CoT	CoT	CoT	-	-	-	-	-	-	GOOD only for under
Hedgehot	+21+3	-	HF	1	CoT	CoT	CoT	Α	-	-	-	-	-	Drop to FULL
Minefield	-	-	-	CoT	Forcin	g Die Roll if r	no Lane	-	-	-	-	-	-	Forcing = Lane
Roadblock	-1+2	+5	-11	1	May not o	ross Roadblo	ck hexside	-	-	-	-	Х	-	Treat as Wall for cover
Sangar	- l +1	-	- I G	1	С	oT I 1 MP to	exit	-	-	-	-	Х	-	Floorpan hits
Weapons Pit	- I +2*	-	-11	1	С	oT I 1 MP to	exit	-	-	-	-	Х	-	* +3 for Very Small vehicles
Wire	-	-	-	Crawl I Infi I	*	*	No Entry	Α	-	-	-	-	-	NA in building hex

M. BUIL BING TABLE									
M: BUILDING TABLE									
Building Description	Туре	Cover	Center Dot	Levels	Height	Notes			
Single Hex	House	HM	Normal	Ground		Also for multiple small buildings in one hex			
Single Hex	Flimsy Hut	G	Normal	Ground	+10	2xCoT for Tracked with no Immobilization roll			
Single hex, multi-story	Tower	HM	Large, yellow	Ground, +10 I +20	+20 I +30	May use white dot; dot: +20; square: +30			
Multi-hex	Large Building	HM	Normal	Ground, +10	+20	May change levels in each hex			
Multi-hex Stairwell	Large Building	HM	Large, Red	Ground, +10, +20	+30	May change levels in printed stairwell hexes			
Multi-hex Roofless	Large Building	HM	Normal	Ground, +10	+20	Treat inside as Debris			
Factory	Factory	HM	Large, Red	Ground, Roof	+20				
Factory Roofless	Factory	HM	Large, Red	Ground	+20				
Steeple	Church	HM	White Cross	+10 above highe	st in hex	No mortar weapons			
Cellar	By SSR	HM	-	-10 below lowes	t in hex				
Single hex, Desert	House	М	Normal	Ground	+10				
Multi-hex, Desert	Large Building	М	Normal	Ground	+10				
Fort, Courtyard	Fort	-	Normal	Ground	+0	No cover but out of LOS			
Fort, Rampart	Fort	- 1	Normal	+10	+10	Improved cover from outside Fort			
I = Improved Cover (brown buildings), M = Masonry Cover (gray buildings)									

S: SPOTTING RANGES TABLE														
		Building	Move	ed, Run	ning							Ir	nprove	d
		Smoke	Assau	ılt, Ove	rstack	Stationary			Good			Masonry, Full		
Conditions	Status	Indirect	V	Р	Н	٧	Р	Н	V	Р	Н	V	Р	Н
Optimal	Normal	*	24	16	18	20	12	16	16	10	12	12	10	10
	Sup, FOW	24	18	10	16	16	8	12	12	8	10	10	8	8
Average	Normal	24	18	10	16	16	8	8	12	8	8	10	8	8
_	Sup, FOW	18	16	8	12	14	6	8	10	6	8	8	6	6
Hazy	Normal	14	14	8	12	12	6	6	10	6	6	8	6	6
	Sup, FOW	12	12	6	8	10	4	6	8	4	6	6	4	4
Night, Khamsin or Fog	Normal	6	6	5	6	5	3	4	4	2	2	3	2	2
	Sup, FOW	4	4	3	3	3	2	2	2	1	1	2	0	1

L: LOS BLIND HEX CREATION TABLE										
1-6	7-12	13-18	19-24	25-30	31-36	37-42	43-48	49-54	55-60	
1	2	3	4	5	6	7	8	9	10	
1	1	2	3	4	5	6	7	8	9	
1	1	1	2	3	4	5	6	7	8	
1	1	1	1	2	3	4	5	6	7	
1	1	1	1	1	2	3	4	5	6	
	1-6 1 1 1 1 1	1-6 7-12 1 2 1 1 1 1 1 1 1 1	1-6 7-12 13-18 1 2 3 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	1-6 7-12 13-18 19-24 1 2 3 4 1 1 2 3 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	1-6 7-12 13-18 19-24 25-30 1 2 3 4 5 1 1 2 3 4 1 1 1 2 3 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	1-6 7-12 13-18 19-24 25-30 31-36 1 2 3 4 5 6 1 1 2 3 4 5 1 1 1 2 3 4 1 1 1 1 2 3 4 1 1 1 1 2 3 3	1-6 7-12 13-18 19-24 25-30 31-36 37-42 1 2 3 4 5 6 7 1 1 2 3 4 5 6 1 1 1 2 3 4 5 1 1 1 1 2 3 4 1 1 1 1 2 3 4 1 1 1 1 2 3 3	1-6 7-12 13-18 19-24 25-30 31-36 37-42 43-48 1 2 3 4 5 6 7 8 1 1 2 3 4 5 6 7 1 1 1 2 3 4 5 6 1 1 1 1 2 3 4 5 1 1 1 1 2 3 4 5	1-6 7-12 13-18 19-24 25-30 31-36 37-42 43-48 49-54 1 2 3 4 5 6 7 8 9 1 1 2 3 4 5 6 7 8 1 1 1 2 3 4 5 6 7 1 1 1 1 2 3 4 5 6 1 1 1 1 1 2 3 4 5	

= Blind Hexes created by terrain along LOS from higher unit. Reduce by one when
firing AND target units are on the same hill mass. Orchard and Palm Grove terrain create
Blind Hexes from a firing unit that is higher than the target unit (including on Hillock)

I: IMMOBILIZATION TA	NBLE
Die Roll	Result
1-6	-
7-0	M-Kill
Cummulative Immobili	zation DRM
Fully Tracked	-1
Wheeled	+1
Elite Tank Commander	-1

Consolidated ATS Tables, version 3.00

F1: COVER STATE EFFECTS TABLE									
Cover State	Col Shift	HPT DRM							
Running	2R	-2							
Assault	1R	-1							
Crawl Stationary	-	-							
Good	1L	+1							
Improved or Wooden	2L	+2							
Full or Masonry	3L	+3							
Per Obscuring	1L	+1							
HE Cushion	1L	-							
Smoke or Dust	4L	+4							
Night, Khamsin or Fog	2L	+2							
Vehicle or Gun on FOW Side	2L	+2							
NCO Directed	1R	-1							
Officer Directed	2R	-2							
Air Bursts	1R	n/a							
Time Fuzed HE	1R	n/a							
Winded Infantry	1L	+1*							
Per Overstacked Vehicle	1R	-1							
Per Overstacked H Weapon	1R	-1							
Per Overstacked 3 SP Infantry	1R	-1							
Per Floor Above (indirect fire)	1L	n/a							
* Apply to Firing unit only	,								

V: VICTORY POINT TABLE				
Result	VP			
Non-leader Personnnel eliminated	SP value			
Commissar or FO	5			
Officer	4			
NCO or BAR Gunner	2			
H Weapon F-Kill or Elimination	4			
AFV K-Kill, Burn or Bail Out	6			
AFV F-Kill or M-Kill	2			
APC or Truck K-Kill or Burn	3			
Aircraft Eliminated	4			
SSR-specified Bonus	+2			
Captured unit	VP x2			

VM: VEHICLE MG RANGE TABLE				
Туре	CMG	BMG	AAMG	
AFV	10	6	10	
APC I Truck		10		

AA: ALTERNATE AMMUNITION AVAILABILITY TABLE					
DR	HEAT	APCR	APDS		
1-2	3	2	4		
3-4	2	1	3		
5-6	1	-	2		
7-0	-	-	-		
Total number of APCR, HEAT and/or APDS capable guns					

and vehicles x 1/3 (drop fractions) and add above die roll result for available shots.*

DIE ROLL MODIFIERS

Grant, Lee, Tiger, Matilda in enemy OOB: - 1

German APCR: 1942 (+1), 1943 (+2), 1944-45 (+3)

* 1944-45 German APCR x 1/10 (round up)