BLOOD AND SAND

INTRODUCTION

BY Wild Bill Wilder

*[**Blood & Sand: Pacific Variant** is an adaptation of the **Variant Design & Development** rules originally written by **Wild Bill Wilder** in 1982 prior to any release of any Pacific theatre modules by **The Avalon Hill Game Company** for its original Squad Leader or Advanced Squad Leader rules. He and his group of players known as **"Wild Bill's Raiders"** attempted to formulate rules for use and create scenarios based in the Pacific theatre using the available counters found in the original Squad Leader and its expansion gamettes. It is to Wild Bill Wilder and his group that this new module is dedicated and below you will find his original introduction for his Blood & Sand rules. However, the contents of this version of **Blood & Sand**, are actually the Chapter G: Pacific Theatre rules found in the ASL rulebook. The ASL rules from Chapter G have been modified (and in some cases entirely rewritten) in some areas where it was necessary so as to coincide with the rules already written and presented in Squad Leader thru GI: Anvil of Victory, and in some cases from the new VSQL module Hollow Legions: North Africa. Even though the rules were originally written for ASL, every effort was made to reference rules originally presented in the earlier set of rules found in Squad Leader, Cross of Iron, Crescendo of Doom, or GI: Anvil of Victory, but in some cases there were some ASL rules that were entirely new to the original SL game and were required to be entirely rewritten so it could fall in line with the original SL-GI rules (in effect, the rules written for ASL were stripped of anything that was considered pertinent to the play of ASL and not in the Original SL game system). in any case, if a conflict of rules should arise, players may either except the highest rules number as taking precedence or with a simple roll of the die.*

- Editor]

INTRO: (By Wild Bill Wilder)

The military involvement of the United States in the Pacific during World War II forms a dramatic and glorious part of our history. It cannot be ignored or forgotten. From the "dastardly and unprovoked attack" on Pearl Harbor to the horrendous explosions over Hiroshima and Nagasaki, the Western world, and in particular the United States, became engulfed in an unparalleled struggle. Millions of soldiers, sailors and airmen were scattered like chaff across the vast expanses of the Pacific ocean and the enormous land masses of the Far East.

Names and places which had previously been unknown to the average American became a familiar part of his vocabulary. Iwo Jima, Tarawa, Midway, the Burma Road, Guadalcanal, and many others have been indelibly printed upon our history pages. "Banzai" is a more familiar term than "Blitzkrieg"; MacArthur, Wainwright, Yamamoto, Tojo and Merrill are names we have heard before.

Having long been a lover of military history, and with an almost inordinate desire to recreate great military encounters through gaming, the Squad Leader system has been a constant fountain of satisfaction for me. The trend of other gaming companies toward the tactical aspects of warfare demonstrates the interest that exists there. For me, tactical situations are just what I enjoy the most. I find that I am a much better sergeant or lieutenant than general. Still, I had an itch I

could not scratch. The yearning for more material on the Pacific was not fulfilled. There were promises, but no product.

Finally, after some years of rather impatient waiting, I began research and experimentation on the Pacific. Then I enlisted the aid of some other very capable people from different parts of the U.S., and we went to work. in the last 18 months the product of our efforts is a Pacific variant based on the Squad Leader system called **Blood and Sand**.

Many hours of correspondence, testing, and correction have gone into the preparation of this variant. Of course, when Avalon Hill Game Co. does finally produce its own version of the war in the Pacific, this effort will lose its significance. I do believe, however, that much of what we have done will be reflected in that product. Perhaps it will even be adaptable to it.

In the meantime, this project stands as is. It has proven to be a valuable learning experience on the personal level. For other garners it offers the following advantages.

1. An introduction to the Allied participation against the Japanese on the tactical level. This is an area left practically untouched by gaming companies. Now you can leave behind for a while the hedgerows of France, the desert sands of North Africa, and the bitter cold of Russia for the sweltering jungle heat, tropical disease and coral reef.

2. An insight into the uniqueness of this conflict. Many basic principles of jungle warfare, invasion tactics, fluid defenses, new weaponry, and combined military strategy were forged in the fires of the Pacific struggle.

3. An inspiration, as the gallantry of many nations involved is faithfully portrayed on the playing board. With the implementation of a few new rules, one is able to "feel" the difference in the action, and perhaps even modify the outcome of the battle.

The complete variant may be made available shortly as a magazine supplement. Included in this will be more maps, more scenarios, and some counters. Wherever possible, however, players should use existing Squad Leader counters. For the scenarios included in this issue of the magazine, for example, use German infantry counters and French support weapons for the Japanese. Any counters you will need to make are illustrated.

The present scenarios (P1-P20) are a sampling of what is to come, and depending upon your response to them, much more will be presented in the future. Other scenarios dealing with the French-Indochinese struggle, Korea, the Near East, and Central America are also possibilities. Your reaction will determine just how far we go. in the meantime, I truly hope that this introduction to the **Blood and Sand** variant will be a pleasant, informative, and inspiring change in your gaming diet.

PV.1 PTO TERRAIN: Except as mentioned otherwise, the following apply whenever "PTO Terrain" is stated as being in effect:

- All woods are Jungle;

- All brush is Bamboo;

- All orchards are Palm Trees;

- All wooden Single Story Houses in hexes containing two separate buildings, but no partial building depiction, are Huts;

- All grain is Kunai;

- Each marsh hex adjacent to one Jungle hex is a Swamp hex;

- No roads exist (all woods-roads are Paths, with no Open Ground in the woods-road portion of those hexes);

- All bridges are Fords;

- Stream "end-hexes" (whether overlay hexes or not) that are adjacent to each other but on different boards are assumed to represent a continuous stream; i.e., each hexside common to two such hexes is treated as a stream hexside [EXC: for LOS/LOF purposes, that hexside is considered a stream hexside only if the LOS/LOF begins in one of those two stream hexes and ends in the other].

PV.1A ROAD/PATH: All references to roads apply only to playable roads (i.e., not to printed roads that are treated as paths or as nonexistent; PV.1). All references to paths apply also to roads treated as paths.

PV.2 FORTIFICATIONS: in daytime scenarios, HIP applies to Fortifications *[EXC: Known minefields; HL/NA 55.8 Addendum]* set up in jungle, kunai or bamboo *[EXC: an entrenchment whose occupant(s) are hidden is revealed when a non-Dummy enemy unit enters its Location only if one of its occupants is revealed too (see PV.4); a pillbox is also revealed if any of its occupants fires].*

PV.3 FIREGROUPS: A unit in dense jungle (2.2), kunai, bamboo or swamp may not participate in a multi-hex FG if another unit in that FG occupies some other dense jungle, kunai, bamboo or swamp hex.

EX: if PTO Terrain (including dense jungle) is in effect, Squad A (in a palm-tree hex) may form a FG with squad B (in a swamp hex), or with squad C (in dense jungle hex), or with squad D (in a kunai hex). No other FG configuration is possible for these units as shown—nor would any other be possible even if DD3 were Open Ground.

PV.4 DETECTION: Loss of concealment (see PV.4A) does not necessarily apply when, during its MPh, an ATTACKER unit enters a jungle, kunai or bamboo Location whose occupying unit(s) consist(s) only of hidden, Stealthy Infantry DEFENDER(S), none of which is in a pillbox/building or manning a hidden Gun. The DEFENDER player has the choice of invoking PV.4A, of having all such DEFENDER units in that Location automatically retain their HIP status (though they can still be revealed by Searching; (PV.10), or of having one of them attack the moving ATTACKER using TPBF on the IFT. Unless pinned beforehand, the MPh of each ATTACKER Infantry unit thusly attacked ends after all attacks vs it prompted by its entry MF expenditure have been resolved. If the ATTACKER unit ends its MPh in that now-revealed DEFENDER's Location, a CC counter is placed therein. in all cases, the provisions for removing a Dummy ATTACKER remain in effect, and concealment rules apply unchanged at the start of the CCPh; however, whenever a hidden unit is placed onboard as per PV.4.1, an Ambush can occur.

PV.4A CONCEALMENT LOSS: Concealment can also be lost due to attempted enemy movement (not advance) into a concealed unit's Location. Whenever a non-berserk enemy infantry/non-charging Cavalry unit attempts to move into a Location containing a concealed unit during the MPh *[EXC: Bypass (12.151); Human Wave (25.23)]*, the DEFENDER must immediately reveal at least one concealed unit in that Location and thereby force the moving unit back (even from a Wire Location) to the last Location occupied before entering his Location *[EXC: units allowed to enter an enemy Location during the MPh; 4.14]* where it will end its MPh (unless it goes Berserk first) and is subject to possible Defensive Fire attack (or, in the case of a routing unit, eliminated or captured for Failure to Rout; 10.533). If the ATTACKER is concealed, the DEFENDER can (before he reveals any unit) force him to momentarily reveal a non-Dummy unit in that stack; if the ATTACKER cannot, his Dummy stack is removed. The MF expended in attempting to move into the concealed unit's Location are still used, but are considered expended in the Location it is returned to; such re-entry causes any already-existing Residual FP in the returned-to Location to attack the returning unit—even if it had already attacked that unit in that phase. Similarly, a Unit forced back into a FFE or minefield Location is subject to FFE/minefield attack as it re-enters

that Location. A unit forced back into a Wire Location is placed beneath the Wire counter. A unit forced back to a Depression Location is placed in it—not in Crest status. A unit forced back to an entrenchment/shellhole Location can derive no TEM benefit there from vs any ensuing Defensive Fire attacks, unless that unit(s) expended the MF's for that location prior to exiting the location and entering the DEFENDERS concealed hex location). A unit forced back to its previous Location is not subject to attack (even by a minefield or FFE) during its brief period in the previously concealed unit's Location, but it is subject to other Defensive Fire attacks when being returned to its previously occupied Location. Random Selection is used to determine which of multiple concealed units must lose their concealment, but all hidden Units in the Location must be placed on board beneath a "?" prior to that Random Selection. If the DEFENDER is unable to reveal a non-Dummy unit in that Location because there are none, all of his "?" in the Location are removed and the moving unit may continue its move from that Location without ever having been forced out of it. If the only concealed unit revealed is a SMC, the ATTACKER may, at his option, immediately attempt an Infantry OVR (PV.4B) if possible, thereby forcing the DEFENDER to immediately reveal another non-Dummy unit in the Location (if he has one).

PV.4B INFANTRY OVR: An Infantry MMC may enter in the MPh a Location containing only one Known enemy SMC (unless that SMC occupies an AFV) at double the total MF cost of entry provided it has passed a NMC to enable it to enter the Location *[EXC: Berserk].* A leader may exempt all MMC he is stacked with and moves with from that NMC by passing it himself, but if he fails, no unit in his stack may further attempt a NMC individually nor may any of those units continue moving or take any further action during that movement phase. A unit may take its NMC at any time during its MPh prior to entering the enemy Location (or in the enemy Location in the case of entry of a Location containing only a Concealed/Hidden SMC), but must add a DRM equal to the TEM (and any applicable LOS Hindrance in - not between - that Location such as SMOKE, grain, or orchard) of the enemy-occupied Location it wishes to enter (hexside TEM apply only if the present LOS crosses that hexside). If other (concealed) units were in the same Location, PV.4 would apply. More than one SMC must be revealed to deny a Location to an enemy MMC capable of OVR. Other MMC could attempt subsequent Infantry OVR attacks but each would require a separate NMC.

[NOTE: INFANTRY OVR: The inclusion of an Infantry OVR rule was a source of heated debate among Playtesters during ASL's creation - many opposed it as an unnecessary complication. However, Others pointed out the End Game problem of using SMC as unrealistic sacrifices to "block" enemy movement into hexes that were required to fulfill Victory Conditions. The resulting rule is an attempt to deal both with the artificial time constraints of the Game Turn and to give lone SMC the option of giving way before overwhelming force rather than risk sure elimination or capture.]

PV.4.B1 SMC OPTIONS: The SMC being OVR has two options if in Good Order.

1. It may attack the moving units on the IFT normally (non-heroic leaders with no SW have no such FP) with PBF/TPBF and any TEM as applicable, and then, if the MMC should still survive and is capable of moving into the SMC's Location, engage it in immediate CC during that MPh; or

2. The SMC may immediately, prior to any Defensive Fire vs the ATTACKER, move (free of all enemy fire) into any adjacent Accessible Location (with any SW normally allowed) of the ATTACKER's choice, which is not occupied by an enemy unit. The ATTACKER may not force the SMC into/onto a wire, minefield, FFE, or Open Ground hex if an alternate choice is available as the ATTACKER's MMC enters its hex.

PV.4.B11 If the SMC is broken, pinned, already held in Melee, TI, occupying a vehicle, or otherwise incapable of movement it does not have this movement option, and its attack options are restricted as befits its status. This movement or attack option can be used by the same SMC again during that MPh if it is OVR by Infantry again, provided it is not now held in Melee.

PV.4.B12 CC: If, after Defensive Fire, the SMC remains in its Location with the entering MMC, normal CC immediately ensues during that MPh. Should the SMC be eliminated or captured, the OVR unit(s), which defeated it, may continue their MPh from that Location with any remaining MF allotment. Other units, which have not already ended their MPh, may then also transit the Location during that MPh. Should the SMC survive this initial CC, it and the OVR units are considered in Melee, marked with a Melee counter, and subject to CC again in that Location in that turn's CCPh. Should another MMC attempt to OVR it while the SMC is in Melee, that MMC may attack it in CC (even though the SMC has already been attacked during that MPh and may not attack back in that MPh) but only the newly arriving attacking unit(s) is eligible to continue movement with any remaining MF in that MPh if successful.

PV.5 SCROUNGING: A Scrounge attempt in jungle, kunai or bamboo receives a +2 drm unless the item being recovered is in a vehicle, trench, building or pillbox.

PV.6 AMBUSH: Ambush (*{COI 98.3}*, **1.13**) may occur in jungle, kunai or bamboo just as if that terrain type were Woods. However, the ATTACKER unit/stack in that hex must add a +1 drm to its Ambush dr.[1]

PV.7 RADIOS: When PTO Terrain (PV.1) is in effect, all radio (but not field phone) Contact and Maintenance DR receive a +1 DRM.[2]

PV.8 TRIP FLARES: During setup for a 1944-5 PTO night scenario involving a U.S. Scenario Defender, the U.S. player may assign a number of trip flares (up to the number available in his OB) to any jungle/bamboo/wire/panji Locations.[3] He does this by secretly recording the grid co-ordinate using HIP of Trip Flare Counters on each such hex and the number of trip flares set up therein. Each time any, even a friendly, non-Dummy (determined as per 12.11) ground unit/stack enters, expends additional MF/MP in or Searches (PV.8C), a Location that currently contains any trip flare(s), the player owning the trip flare(s) immediately makes a dr ($\triangle$) *[EXC: no dr is made if the unit/stack is entering (or entering the Location via) a trench/pillbox/subterranean passage, or is entering the Location via a path/TB created during play, or if the MF/MP expenditure is made for Stopping, Delay or placing SMOKE; for Panjis see also 9.121]*. During the MPh, one dr is made for each separate qualifying MF/MP expenditure (not for each such MF/MP expended), and is made before Defensive Fire is conducted. The only possible drm is a -4, which applies if during the current Player Turn the unit/stack entered the hex using (or is Searching "across" a hexside that contains) a road or a path that was not created during play. If the Final dr is ≤ the number of trip flares currently in that Location, a trip flare has been set off and a Trip Flare counter is placed therein.

PV.8A EFFECTS: A Trip Flare counter Illuminates the ground-level Location of its own hex and all Accessible ground-level Locations, including all pillboxes in those hexes *[EXC: if placed in a Depression, it can Illuminate in an Accessible Depression hex only if those two hexes share a Depression hexside]*. Each Trip Flare counter placed onboard during the MPh is placed with its red-on-white side face-up, and is removed at the end of that Player Turn's CCPh after the placement of "?"; each placed during a RtPh/APh/CCPh is placed with its purple-on-white side face-up, and is removed at the end of the next Player Turn's AFPh (along with Defensive Fire counters). The MF/MP expenditure that sets off a trip flare is considered to have been made in an Illuminated Location. A set-off trip flare is equivalent to a fired Starshell for the purpose of allowing Fire Lanes vs Bore Sighted hexes (COI 78) and the subsequent use of starshells/IR (SQL 49.6).

PV.8B ELIMINATION: Once a trip flare has been set off, the number of them remaining in that hex is reduced by one (or by two if the flare was set off by a vehicle and the -4 drm applied). An ORIGINAL KIA DR caused by any HE attack or FFE Concentration eliminates all trip flares in the hex; Vs FFE only, trip flares have a morale of 7 and must take a NMC; one trip flare in the Bombarded FFE hex is eliminated for every multiple of one by which that MC is failed. Elimination by FFE Bombardment does not cause trip flare Illumination.

PV.8C SEARCH &RECON: A Search/Recon (see also PV.10, 13.96) vs a hex reveals the presence, but not the number, of trip flares therein. in addition, when a hex that contains a trip flare is Searched, a separate trip flare dr is made for that hex as if the Searcher were entering it (PV.8), but ignoring the presence of all entrenchments, TB and paths.

SEARCH/RECON dr [PV.10]	
Final dr indicates the number of Accessible hexes other than its own of the ATTACKER's choice which the unit/stack may not Search	
-1	Per Stealthy Searching unit
-1	Per HS equivalent > one HS Searching
+x	Leadership factor of best participating leader
+1	Per Lax or CX Searching unit (per each condition)
All Searched hexes (including all above-ground Locations in those hexes) automatically reveal their contents, including the presence of minefields (but not their type and strength) and Fortified Buildings. All enemy concealed units revealed lose their "?" (or if hidden are placed on board with a "?")	

PV.8D DYO: The BPV of each trip flare is "1".

PV.9 OVERLAYS: Overlays have been included (ie, inserted) directly into some mapboards and those boards being identified as Customized.

PV.10 SEARCH/RECON: As each Good Order Infantry/Cavalry MMC, or moving stack that contains ≥ one MMC, ends its move it may attempt to reveal concealed enemy units (/Minefields) in Accessible hexes (including its own) by expending one additional MF in its present hex and making a Search dr, provided that all units making the attempt are neither Pinned nor using Assault Movement. Regardless of the outcome, that unit or moving stack is TI for the remainder of that Player Turn. The Final dr indicates the number of Accessible hexes other than its own of the ATTACKER's choice which the unit/stack may not Search. Such hexes may include those, which the ATTACKER knows contain no hidden units (such as Open Ground or a just-traversed hex). This dr is modified as follows:

PV.10A THIS AND OTHER RULEBOOKS: The various rules in Squad leader and those which were added later in Cross of Iron, Crescendo of Doom, GI: Anvil of Victory, and Hollow Legions/North Africa also apply in conjunction with those in Blood & Sand are used herein unless specifically stated otherwise. Blood & Sand rules assume the presence of the Question and Answer Errata for SQL-GIA. That Erratum is not included here, but is available, in whole, and in electronic form in needed. This rulebook is an ongoing venture and may often at times be updated to correct any conflicts between rules. You can find the most updated version of this rulebook in the Vassal\VSQL\Files section or on the Wargame Academy/Squad leader Academy websites.

THE JAPANESE

Introduction: The Japanese Military Code demanded a great deal from its men, even to the point of offering their lives in sacrifice for their country and Emperor. Death was always preferable to surrender. These rules reflect that attitude, and are an addition to the original rules found in Squad leader and its gamettes: Cross of Iron, Crescendo of Doom, and GI: Anvil of Victory.

Although there are differences between the play of COI-COD and GIA, the concepts are similar in regards to the mechanics of play when it comes to the Japanese. The only basic difference is that GIA offers one additional step in the reduction of Japanese units (using Half-squads and ELR).

1. The Infantry:

Squads (COI-COD):
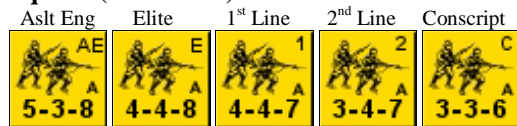
| Aslt Eng | Elite | 1st Line | 2nd Line | Conscript |

Crew (COI-COD):

Elite/1st Line   2nd Line / Conscripts

Squads and Half-Squads: (GIA)

Assault Engineers/Airborne Units:

ELITE:

FIRST LINE:

SECOND LINE:

CONSCRIPT:

Crews:
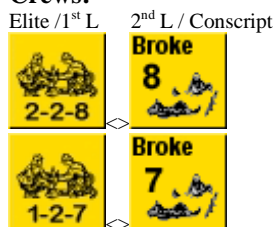
Elite /1st L   2nd L / Conscript
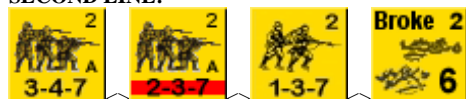
1.1 SQUADS: Japanese squads have a Good Order and Reduced side in addition to their broken side. Unlike all the other nationalities, Japanese *squads* suffer a form of Step-Reduction instead of -or in addition to- breaking. A Japanese squad (or HS in GIA) must first be reduced before it can become broken.

EX COI-COD: The first time a squad fails an IFT generated MC it is flipped to its reduced side. If that now reduced unit is called upon to take and fail yet another IFT generated MC it is then flipped to its broken side.

EX GIA: The first time a squad fails an IFT generated MC it is flipped to its reduced side. If that now reduced unit is called upon to take and fail yet another IFT generated MC it is then replaced by a *Good-Ordered* HS. If an unbroken HS fails an IFT generated MC (*EXC: 18.3 Fate, 142.311-312 Casualty & Double-Break MC's*) it is then flipped to its broken side.

[**GIA only ELR Note:** Japanese units which fail their ELR are replaced by the next lower quality unit (4-4-8 > 4-4-7 > 3-4-7 > 3-3-6) (*EXC: Assault Engineer/Airborne units are reduced to their 2-2-8 Half-squads before they can become broken*).] Japanese squads will remain in a location despite the presence of an enemy AFV occupying such a location by passing a normal morale check (PAAMC), (e.g. they are not placed in an adjacent hex). An unbroken Japanese squad will remain in Melee in the location and attack that AFV during each CCPh until it is eliminated, breaks, or the AFV is destroyed or voluntarily leaves the location. Japanese squads may attack an enemy AFV during the MPh from ANY terrain type, including open ground if it passes a PAAMC. Japanese squads may also deduct any positive TEM in addition to any Leadership DRM from their PAAMC DR. Assault Engineers, Elite, and 1st Line Japanese units (including crews) are considered Stealthy (Advanced Ambush, CC). All Non-Conscript Japanese squads have the same characteristics similar to Partisans except as noted below:

1.11 Unless specified otherwise by the scenario in play, the basic infantry movement cost (5.5) for all non-Conscript Japanese units entering a woods/jungle hex is 1 MF per woods/jungle hex entered.

1.12 Japanese squads that are fired upon in a woods hex receive double the usual woods/jungle Terrain Effects Modifier (+2).

1.13 *AMBUSH:* To reflect the skill of the Japanese in springing ambushes while in jungle terrain, any Close Combat attack involving Japanese units which takes place in a woods/jungle hex (or jungle/(forest)-road hex) are not considered simultaneous. The Japanese player is allowed to execute his Close Combat attack(s) first by declaring an Ambush, and if successful only the survivors of the Japanese Ambush may attack in return. The Japanese may declare an ambush only if the woods/jungle hex in which it takes place is part of a group of 3 or more contiguous woods/jungle hexes and was advanced into directly from a woods/jungle hex of the same group of contiguous woods/jungle hexes. To be considered contiguous, the woods hex symbol itself must extend through three hexes without interruption. If the ambushes CC attack ends in a melee, the Japanese ceases to have an attack-first advantage in the following turns of the melee.

1.131 Advanced AMBUSH: Whenever one side attempts to ambush another [EXC: 1.13, 98], the ambushing side resolves all of its CC attacks in that Location first and then only the survivors of the ambush may attack in return, until a Melee develops and in the next Player Turn both sides attack simultaneously.

Advanced AMBUSH drm's [B&S 1.132]	
drm	**CAUSE**
+2	Cavalry, Vehicle, or in Pillbox
+1	If BU or Stunned AFV (each)
+1	If LAX, CX, broken, berserk, (or pinned) (each apply)
-1	If Stealthy*, **
-2	If Concealed
+x	x = Leadership modifier of best unpinned Good Order leader unless alone (10.7) or if any of the force is berserk

* All Heroes, Japanese Elite and 1st Line Infantry, and Partisans (of all nationalities) are considered Stealthy

** ANZAC, Commandos, Gurkhas, Finns (except Green or Conscript) are Stealthy

EX: Should an Ambush occur in a CC Location containing a vehicle, the ambushing side gets to resolve all of its CC attacks in that Location first during that CCPh. in any subsequent CCPh, the players would alternate sequential attacks.

1.132 AMBUSH drm's: Whenever any Infantry unit advances into CC (unless reinforcing a Melee) in a woods/building Location, or with/against a concealed unit(s), or whenever a hidden unit is placed onboard, an Ambush can conceivably occur. Prior to declaring any CC attacks, each player makes one dr. If either player

rolls at least three < the other, he has succeeded in ambushing his opponent. The side, which has Ambush status in a CC, is entitled to a -1 DRM to its CC attacks and a +1 DRM to CC attacks against it until that CC becomes a Melee in the next Player Turn. The side with an Ambush advantage may also maintain any concealment it has in CC until it attacks without eliminating/capturing its target. The side being ambushed loses all concealment it may have had. The Ambush Status dr is subject to the following drm even if only a portion of a player's CC force is qualified to use it.

1.133 AMBUSH WITHDRAWAL: Any Infantry (unless pinned/berserk) that is part of a force which has qualified for Ambush has the option to decline CC altogether, prior to CC resolution, by immediately withdrawing into an Accessible Adjacent Location or may withdraw from CC automatically after resolving all CC attacks by and against it, but only before Melee occurs.

EX: A German 6-5-8 squad advances into a Location containing a concealed Russian 4-4-7 squad. The 4-4-7 does not lose its concealment yet. Both players make a dr in order to establish if an Ambush has occurred. As neither side is CX, the Russian player has a -2 drm (for being Concealed) while the German player has no drm. The German player makes an Ambush dr of 3; if the Russian player makes an original Ambush dr of ≤ 2, he has Ambushed the German. The Russian player however, rolls an Original dr of 3, and therefore no Ambush occurs. The Russian player must now decide (even though the German is the ATTACKER) if his concealed 4-4-7 squad is going to attack in CC. If the Russian decides to attack, the 4-4-7 immediately loses its concealment, allowing the German 6-5-8 to attack at 3-2 odds. If the Russian decides not to attack, the German's attack would be at 3-4 (FP halved vs a concealed unit). 3-4 rounds down to the nearest odds ratio, which is 1-2. If the German CC DR results in a 2 or 3, the concealed Russian squad is eliminated; if the DR results in a 4, the 4-4-7 loses its concealment status (and if playing under GIA rules is subsequently reduced to a HS). Any other DR result has no effect on the concealed 4-4-7; i.e., it does not lose its concealment, nor is it locked in Melee, it is free to leave the hex by advancing into an adjacent hex while maintaining its concealment status, or it may leave the hex during its next MPh/APh (Note: If while playing under GIA rules, it were to use Assault Movement (GIA 142.71) and/or advance into an ADJACENT non-Open Ground Location, it would even be able to retain its concealment status) or it may remove its concealment status and attack during its next fire phase at TPBF vs the 6-5-8. If the 6-5-8 should survive elimination but break while in the same hex it would be automatically taken prisoner (or executed if SS).

1.14 Unbroken Japanese units may impart their special movement and combat capabilities to other friendly units providing they occupy the same hex at the instant the capability is being utilized.

1.15 Whenever an armed, non-berserk, non-broken Japanese squad fails an IFT called for MC it can either suffer strength reduction and/or become broken. If the squad fails to pass the MC DR it suffers any or all of the following effects:

- o If the squad is already broken then it is eliminated.
- o If the squad is non-broken and the red die of the MC DR is equal to or less than the white die the unit becomes broken.
- o If the squad is non-broken and the red die of the MC DR is greater than the white die the squad does not break but instead suffers strength reduction [1.161].
- o If the MC DR is an unmodified DR of '12' (i.e., boxcars) the squad suffers casualty reduction (1.16) and is broken. (See also 1.3 SELF-RALLY)

1.151 ROUT & INTERDICTION: Unlike other nationalities, Japanese units are not eliminated for failure to rout due to open ground. Instead, they are permitted to move thru open ground while routing, however, they can be interdicted by any non-broken enemy unit within normal range (including any SW) and LOS which can make at least a 1 IFT Firepower attack. An interdiction causes the unit routing to undergo a normal morale check. If it passes it may continue routing. If it fails, it is replaced by the next lower quality squad and then may continue its rout. Only 1 interdiction may be enforced per hex entered. A squad may interdict as many units as it can see, but the routing squad only suffers from 1 interdiction dice roll per hex. Leaders routing with the squad(s) may apply any leadership drm's to the interdicted squad, including its fanatic influence modifier.

1.16 CASUALTY REDUCTION: Any time a squad of any nationality rolls an original unmodified '12' during any IFT MC or rally DR, it suffers from casualty reduction and is replaced with a squad of the next lower level.

1.161 STRENGTH REDUCTION: Whenever a Japanese squad (not crew) fails an IFT MC, wherein the red die is greater than the white die, instead of becoming broken it suffers a strength reduction by flipping the counter to its striped side. Any two reduced squads of the same quality class may recombine into a Full Strength squad of the same quality class. Any two reduced squads of different quality classes

may recombine into a Full Strength squad of the lowest quality class of the two squads being combined.

1.162 LAX: A SSR may penalize certain units as Lax to reflect their generally unprepared status. All Inexperienced Personnel (Conscripts, Green) are considered Lax. A Lax unit must add +1 to its Ambush status dr.

1.2 CREWS: Crews suffer the same results as regular squads but are never strength reduced in any way.

1.3 SELF-RALLY: Japanese squads never suffer the effects of DM. During the rally phase all Japanese non-conscript squads must attempt to self-rally without the aid of a leader if one is not present. in order to self-rally the squad must roll its rally number on its broken side. However, if a broken non-conscript squad attempting to self-rally fails, it is reduced to the next lower quality broken squad. A broken Conscript, may never attempt self-rally.

1.4 SMC: Japanese SMC have no broken side, and cannot break voluntarily. A Japanese SMC (including a wounded leader) who suffers a break result due to any cause is instead Wounded [**EXC:** an already-wounded heroic SMC (including a wounded T-H Hero; 1.421) is eliminated, as is a leader who suffers a Casualty MC (1.41)].[5] He is flipped over to his Wounded side (unless he was already wounded) to indicate the effects on his morale, movement, and leadership. Japanese SMC do not take LLMC and do not Pin; however, any Pin result vs a concealed Japanese SMC can cause the loss of his concealment.

Leaders:

Leaders Corresponding Broken side:
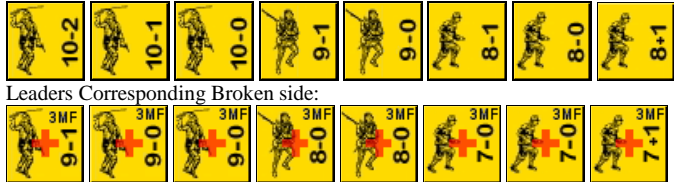
1.41 LEADERS: The rank structure of unwounded Japanese leaders is as follows (in descending order): 10-2, 10-1, 10-0, 9-1, 9-0, 8-1, 8-0, 7-0. A Japanese leader who suffers a Casualty MC (original '12' DR) becomes wounded and is eliminated if already wounded. A Japanese Infantry/Cavalry leader increases the Morale Level of all other non-berserk Japanese Infantry/Cavalry units [EXC: another leader] in his Location by one. A Japanese leader must attempt to rally broken units in its Location. in addition to the Morale Level increase, a unit is also immune to DM status while being rallied by a Japanese leader. If a MMC fails to rally under the direction of a Japanese leader it is replaced by the next lower quality broken unit of its size; if already the lowest quality, a squad suffers a strength reduction, if it is already strength reduced and at the lowest quality it is eliminated. See also 1.62.

1.411 BERSERK: Should a Japanese Leader go berserk, all friendly Infantry in the same Location as the Leader will automatically go berserk.

1.412 ARMOR LEADERS: When a Japanese Inherent crew that has not suffered a Wounded/Stun/Recall during the scenario is forced to abandon a vehicle, any armor leader who is part of that crew may immediately (but at no other time) become an Infantry leader counter of the next-lower quality. An armor leader who becomes an Infantry leader cannot become an armor leader again.[6]

1.42 HEROES: Japanese Heroes can be created via heat of battle [159.7]. in addition, Japanese squads may create "suicide" Heroes:

1.421 TANK-HUNTER (T-H) HEROES: An armed, Good Order Japanese Infantry squad that:

(1) in its MPh and is within eight MF of an enemy AFV in its LOS, or
(2) at the start of its APh is ADJACENT to an enemy AFV in its LOS, or
(3) during an enemy MPh is able to conduct a DF Immobilization attack vs an enemy AFV in its LOS, or

(4) at the start of the CCPh is the DEFENDER in the same or adjacent location as,

an enemy AFV in its LOS, may at that time make one attempt to create a T-H Hero[7] *[EXC: no attempt is allowed if that MMC is marked with a Prep/Def Fire or Pin/TI counter]*. It does so by making a Final dr (△) of ≤ 3; cumulative drm are +1 if a HS, +2 if a Conscript, and -2 if possessing a DC it will give to that Hero (see 1.424). An Original 6 dr pins that MMC unless it is conducting a Banzai Charge. A T-H Hero creation attempt is a "?" Loss activity. An attempt made in the MMC's MPh costs no MF (and hence qualifies neither it nor any resulting Hero as a target of Defensive Fire), but if it is to be made after the MMC has expended MF it must await the resolution of all Defensive Fire prompted by the MMC's immediately preceding MF expenditure. An attempt made in the CCPh must await the determination of any possible Ambush, and the resolution of all (if any) ATTACKER Ambush attacks, in that Location. A stack of MMC may attempt to create T-H Heroes "simultaneously", but must make individual dr; if this is done during a friendly MPh/APh, those MMC who rolled "simultaneously" can then move/advance in that phase only as a stack. When a T-H Hero is created (or voluntarily loses HIP; 1.422), the AFV (or unit/Fortification; 1.424) that allowed his appearance becomes his Designated Target. If ≥ two such targets qualify, the T-H Hero's owner must choose one of them as the Designated Target. in each Player Turn, an allowed MMC can theoretically create two T-H Heroes; one each in the MPh and APh when it is the ATTACKER, or one each in the MPh and CCPh when it is the DEFENDER. However, the total number of T-H Heroes allowed per scenario may not exceed 10% of the number of Japanese squads (only) in the OB prior to 1943, 20% of that number in 1943, 33 % of that number in 1944, and 50% of that number in 1945 (FRU in all cases). The total allowed number of T-H Heroes yet to appear onboard is kept track of on a side note. Use a blank counter and Label command to note such info.

1.422 HIP: in a 1944-45 scenario in which at least some Japanese units set up on board, any number of T-H Heroes (up to the allowed total; 1.421) may be set up using HIP in lieu of being created during play. A hidden T-H Hero can lose HIP involuntarily in the normal manner, but can lose it voluntarily only at the times and in the circumstances in which a T-H Hero may be created during play [EXC: the presence of a "creating" MMC is not required]. When his HIP is lost, all rules for T-H Heroes go into effect for him [EXC: he might be eliminated immediately; 1.425].

1.423 USE: A T-H Hero has no Hero DRM, may not possess a Gun or a SW other than an ATMM (1.4231) or a DC Transferred to him as per 1.424 (thus he may not use MOL even if his side is otherwise allowed to), may not attempt Recovery (or Transfer except to receive a DC as per 1.424), and may not become PRC. When a T-H Hero is created or voluntarily loses HIP, he must immediately:

1. Make a Banzai Charge (1.5; see also below) at his Designated Target AFV, if it is the Japanese MPh; or
2. Make a CC Reaction Fire attack vs that AFV, if it is the opponent's MPh; or
3. Advance into that AFV's Location, if it is the Japanese APh; or
4. Remain in that AFV's Location, if it is the CCPh.

During the CCPh the T-H Hero must also attempt to attack that AFV if in its Location. Assault/Hazardous Movement being employed by the creating MMC does not apply to the T-H Hero, nor does that MMC's CX status (if any). A T-H Hero created during a friendly MPh by a MMC that has already expended MF has two MF (one MF, if that MMC is conducting a Banzai Charge) deducted from his eight-MF allotment for each MF that MMC has already expended, but conducts his Banzai-Charge MPh before that MMC continues its MPh. While he is doing so, that MMC and all other units moving with it as a stack/Impulse are temporarily considered non-moving [EXC: they can still be affected by new Spraying Fire, Fire Lane and Aerial attacks directed at a T-H Hero but also hitting their Location, and their current movement status would apply. A vehicle may not make a Motion Attempt based on a T-H Hero's MF expenditure. A T-H Hero making a Banzai Charge does not have his Morale Level increased by one, and must move individually (i.e., as part of neither a stack nor a multi-unit Impulse). During his Charge he may enter an enemy occupied hex only if it contains his Designated Target or is ADJACENT to that Target. A T-H Hero who is in his Designated Target's Location during his MPh may make a CC attack vs it at that time, provided he has survived all Defensive First Fire allowed against him by his immediately previous MF expenditure; that Location is then marked with a CC counter. A T-H Hero who is ADJACENT to his Designated Target at the start of his APh must advance into that Target's Location if able to do so.

1.4231 CC & ATMM: A T-H Hero has one FP, which is usable only in CC vs Personnel (hence for rout and Interdiction purposes he is Unarmed and has no Normal Range), and has a CC Value of 5. in addition, before making his CC attack he may roll for an ATMM:[8] a Final dr of ≤ 3 succeeds; however, an Original 6 dr does not pin him (1.4). The only possible drm is a +1, which applies if the scenario is pre-1944. No other Japanese unit may roll for an ATMM. A T-H Hero attacking/defending

together with a MMC merely adds one to that MMC's FP or CC Value; however, vs a vehicle, his ATMM DRM (if any) can apply to that combined attack.

1.424 DC HERO: A unit allowed to create a T-H Hero may, if possessing a DC, make such an attempt in its own MPh provided it is within eight MF of and has a LOS to any enemy unit/Gun and/or to any enemy-Controlled hex that contains a Known Fortification counter; being within eight MF of and having a LOS to a enemy AFV is not required in this case. If the T-H Hero is created (the DC adds a -2 drm to this attempt; 1.421), that DC is automatically transferred to him and he is then termed a DC Hero. A DC Hero is treated the same as a T-H Hero except as stated otherwise. A DC Hero may not Place/Throw a DC in the normal manner, and may not make a CC attack. A DC Hero must declare as his Designated Target (and hence during his MPh must Banzai Charge) the enemy unit/Gun/Fortification that allowed his creation. When in that Target's Location (or hex, for a pillbox) during or at the end of his MPh, he may detonate his DC at that time (and does not expend a MF as per A23.61 to Place it), provided he has survived all Defensive First Fire allowed against him by his immediately previous MF expenditure. The DC attack is otherwise resolved as if Placed [EXC: if he is above a Bank or Panji counter, see 8.212 or 9.211 respectively]. See also 1.612. Any unbroken Japanese Infantry unit possessing a DC may, in lieu of placing it in the normal manner (1.612), detonate it immediately during or at the end of its own MPh in the same manner as a DC Hero (and consequently is eliminated as per 1.425).

1.4241 FORTIFIED BUILDING: If a DC Hero's Designated Target is in a Fortified Building Location he cannot enter, while ADJACENT to that Location he may expend two MF during his MPh as if attempting to enter it (or one MF if entry would be via a stairwell). If he survives all Defensive First Fire allowed by that MF expenditure, he might then immediately detonate his DC (1.424 applies) in an attempt to create a Breach. If a building's Fortified status is unknown to a T-H Hero when he attempts to enter it, his building-entry expenditure still qualifies him to detonate his DC in the same manner.

1.425 LOSS: If not eliminated beforehand, a non-hidden T-H Hero is removed from play immediately upon making his CC/DC attack vs his Designated Target (even if his DC's Effects DR is ≥ its X#).[9] If he does not make such an attack, he is removed either at the end of the Player Turn in which he was created (or lost HIP) or, if in Melee at that time, immediately when he is no longer in Melee. If a T-H Hero's Designated Target is eliminated before he can reach/attack it, he is immediately eliminated. The elimination of a DC Hero also eliminates his DC. A T-H Hero who loses HIP status involuntarily (see 1.422) is immediately eliminated unless his HIP loss occurs either during the enemy MPh and he makes an immediate Reaction Fire attack or during a CCPh in which he is a DEFENDER in the same Location with an enemy unit. If a hidden T-H Hero who is the only DEFENDER unit in his Location is eliminated due to being involuntarily revealed by the entrance of his Location during the enemy MPh, that enemy unit/stack is not returned to its previous Location and forced to end its MPh; it remains in the (now dead) hero's Location and may continue its MPh if otherwise able.

1.5 BANZAI CHARGE: A Banzai Charge is the Japanese version of a Human Wave (see 1.51), and uses all rules applicable to Human Waves except as stated otherwise. Any Good Order Japanese Infantry unit (even one SMC) may declare a Banzai Charge, even if ADJACENT to an enemy unit; hence a Banzai Charge does not require multiple MMC in three ADJACENT hexes. However, units in different hexes wishing to participate in the same Banzai Charge must still be ADJACENT to one other such unit in order to be part of that chain. A leader must participate in each Banzai Charge that includes ≥ one MMC. [EXC to all: a T-H Hero who is created (or voluntarily loses HIP) in a Japanese MPh must make his own Banzai Charge as per 1.423]. Mark each unit that is participating in the Banzai with a "Banzai" marker, which have been provided for player convenience. Each unit/stack that performs a Banzai Charge is then marked as **LAX** (see 1.6) at the end of its MPh if it is in (or able to advance into) an enemy-occupied Location. Flip the "Banzai" markers to reflect the unit(s) as being LAX.

1.51 HUMAN WAVE (HW): Human Wave attacks may only be conducted by Russians, Japanese, and Chinese nationalities. The ATTACKER may declare a HW attack during his MPh by selecting ≥ 1 participating MMC (and an average of at least two MMC per hex) from each hex of a chain of three or more adjacent contiguous hexes, as well as ≥ 1 leader from any of these hexes. All the participating units must be in a contiguous chain of ADJACENT Locations, must be in Good Order, free to move, and cannot have started their MPh yet. No unit in the HW chain can be guarding prisoners, a passenger/crew, or ADJACENT-to or in-the-same-hex-as an enemy unit [EXC: 1.5]. At least one unit in the HW chain must have a LOS to an enemy unit (ie the 'target') within eight hexes, which the chain will move towards to during that MPh. The units participating in the HW are termed HW Units; they lose any concealment and are exempt from PAAMC, and any pin/LLMC results [EXC: Wounded SMC, Collapsed huts (5.5)] while they are part of the HW; for the remainder of that Player Turn they have their Morale Level increased by one.
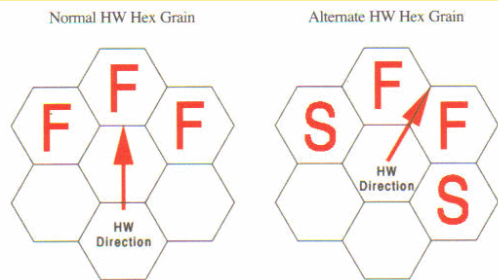
1.511 DIRECTION: The ATTACKER must choose a Hex Grain or alternate Hex Grain that includes the target enemy unit and that is as close as possible to a HW Unit that has LOS to, and is within eight hexes of, the target enemy unit. This HW (alternate) Hex Grain should be marked with HW Direction counters. The direction along the HW (alternate) Hex Grain towards, and beyond, the target enemy unit is the HW Direction [EXC: a unit conducting a Banzai Charge (1.5) against an enemy unit in the same hex cannot be used to establish the HW Direction; if no other unit can establish the HW Direction, then only units in the hex may participate in the Banzai Charge].

1.512 FORWARD AND SIDE LOCATIONS: During the HW, two or three of the hexes adjacent to a HW Unit are considered forward hexes. Given a normal HW Hex Grain, the hex adjacent to a HW unit in the HW Direction is a forward hex, as are the two hexes adjacent to both this hex and the HW unit. Given an alternate HW Hex Grain, the two adjacent hexes in the HW Direction are forward hexes, and the two hexes adjacent to the HW unit and one of the forward hexes are side hexes. The Locations in forward hexes that are ADJACENT to the HW Unit are Forward Locations and the Locations in side hexes that are ADJACENT to the HW Unit are Side Locations.

1.513 MOVEMENT: All HW Units have 8 MF [EXC: a wounded SMC has 3 MF] (which can never be increased) and can enter enemy-occupied Locations, but cannot carry more than their IPC. All HW Units must move to a new Location as a multi-hex stack before any may make a new MF expenditure. This fractional part of the HW Units' MPh is called an Impulse. For each Impulse, all HW Units expend the same number of MF as the HW Unit which expends the most MF that Impulse [EXC: if a wounded SMC has enough MF to enter the next Location, but not as many MF as are being expended by the rest of the HW that Impulse, it instead expends its remaining MF to enter the new Location as if it were making a Minimum Move (4.134)—i.e., it becomes pinned and CX—even if it already entered a new Location this MPh]. [32] For each Impulse, each HW Unit must (if possible) do one of the following and cannot expend MF for any other reason: move to a Forward Location; move to a Side Location that contains an enemy unit; move up or down in a building while moving closer to the Ground Level and/or an enemy unit in that hex; move beneath Panji/Wire (with individual Exit dr for each HW unit); move above an Entrenchment/pillbox counter; move below an Entrenchment counter containing an enemy unit; move below an Entrenchment counter or into Crest status if lacking sufficient MF to enter a new Location. Any Panji/Wire/Entrenchment movement may be in addition to entering a new Location during an Impulse. Prior to, and at the end of, each Impulse (after all Defensive First Fire) a unit may perform any legal action that costs no MF (e.g., dropping a SW).

1.514 RANGE: If a HW Unit increases its Range to the HW (alternate) Hex Grain (1.511)—i.e., to the closest hex of that Hex Grain—it must be marked with a Range counter. As long as it is so marked, it cannot again increase the range to the (alternate) Hex Grain. The Range counter is removed as soon as the HW Unit decreases the range in a later Impulse (or at the end of the MPh).

1.5141 A HW Unit may enter neither a Location that it left in a prior Impulse that MPh nor a Location ADJACENT to such a Location. If the HW Unit is unable to move to a new Location, it must spend its remaining Impulses in its current Location.

1.515 DEFENSIVE FIRE: Minefield/OBA/Residual FP attacks in the Location that is being left are resolved immediately as each HW Unit moves, while such attacks in the Location being entered are resolved after all HW Units have finished moving that Impulse. The DEFENDER can then Defensive Fire on any Location(s) presently occupied by HW Units before the Impulse ends.

1.516 ENEMY UNITS: If a Forward Location enterable by a HW Unit is devoid of armed, friendly units and contains an armed, Known, enemy unit, the HW Unit must move to that Location, or to another Accessible Location that contains either a Known enemy unit or a pillbox occupied by such a unit. Once any HW Unit enters such a Location during an Impulse, the Location is no longer devoid of friendly units, freeing other HW Units from the requirement to enter that Location during that Impulse. Upon entry of an enemy-occupied Location, mark all units with a CC counter. If a Location entered contains one enemy SMC only, Infantry OVR (4.15) is automatic without a NMC and with normal (non-doubled) MF cost, and the SMC cannot move to another Location. If the Location contains unarmed enemy units, 19.12 and/or 20.54 apply at the end of the Impulse.

1.517 ENDING THE HUMAN WAVE: A unit remains a HW Unit (even if no longer adjacent to another HW Unit) until it is: eliminated; broken; out of MF at the end of an Impulse; at the start of an Impulse in a Location (or in a hex with a pillbox) containing an armed, known enemy unit; or is a Guard due to capturing a SMC/Unarmed/Broken unit. When there are no HW Units left or no HW Unit is able to enter a new Location, the HW ends. A unit that has been part of a HW may use Advancing Fire and/or Advance if otherwise able to [EXC: if in a Location containing a Known enemy unit it is marked with a CC counter (or a Melee counter, as appropriate; 4.152) and cannot advance out of that Location as long as that CC/Melee continues].
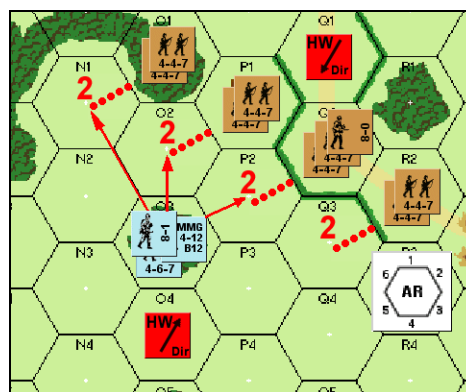
EX: The Russian has just declared a Human Wave attack using the enemy units in O3 for determining the direction. He must now choose a (alternate) Hex Grain that includes O3 and is as close to a HW Unit as possible. Possible (alternate) Hex Grains are: O1-O2-O3-O4; P1-O2-O3-N3; P1-P2-O3-O4; Q2-P2-O3-N3; and R2-Q3-P2-O3... which all have a range of 0 to a HW Unit. He chooses P1-P2-O3-O4.... by marking it with HW Direction counters. During the Human Wave, a unit's forward hexes will be the hexes that share hexsides 4 and 5 (see AR counter) with the unit's current hex, and its side hexes will be the hexes that share hexsides 3 and 6 with the current hex (i.e., a HW Unit in P2 will have O3 and P3 as forward hexes and O2 and Q3 as side hexes). If instead the non-alternate Hex Grain Q2-P2-O3-N3... had been chosen, a unit's forward hexes would be the hexes that share hexsides 4, 5 and 6, and there would be no side hexes (i.e., a HW Unit in P2 would have O2, O3, P3 as forward hexes).

in his first Impulse the Russian moves all elements of the chain forward one hex (as shown in Illustration 1), at a total cost of two MF (because the units in Q2 and R2 had to cross a hedge). The units that entered N1 and O2 are marked with a Range counter (1.514) since they increased the range to the HW alternate Hex Grain and must decrease the range before they can increase it again. Movement and Defensive Fire is simultaneous and therefore all Defensive Fire must be conducted at once before any further movement may be made. Counters participating in a HW may not be 'backed-up' during the remaining DFPh. The German MMG attacks O2 with 8 FP (PBF) and its MG penetration attacks N1 with 4 FP, each target also suffers –2 DRM for MOG penalty. It rolls an Original 10, which results in a NE vs. N1, but results in a NMC vs. O2. The two Russian 4-4-7 squads roll for NMC (their morale level is increased while in a HW), the first rolls a 4 and passes while the second rolls a 9 and fails and is marked with a DM counter. The 4-6-7 is then marked with a Def Fire counter. The 4-6-7 squad now fires its Inherent Firepower at P2 using PBF, which is being directed by the 8-1 Leader. The attack is an 8 FP (for PBF) with a -3 DRM. The Original DR is an 8, resulting in 1MC. The Russian player rolls a 9 for the leader, breaks and now no longer has its Morale Level increased. One squad rolls ≤ 7 and is unaffected. The second rolls > 7 and fails. They need not take a LLMC because they are part of a Human Wave (which is immune to Pin/LLMC results).

in the second Impulse at least one of the HW Units in O2 or P2 must now enter O3. The Russian moves all unbroken units forward as shown. Since the 4-4-7 in P2 enters O3, the unbroken 4-4-7 in O2 is now free from the restriction of 1.516 and it may instead move to N2, which it does, while the broken squad remains where it is. Of the units that were marked with Range counters in N1 during the first Impulse, the two 4-4-7's in N1 can remove their Range counters since they now decrease the range, while the 4-4-7 that enters N2 from O2 does not and must keep its Range counter.

It is now the Russian third Impulse; the Russian units currently in O3 now end their MPh and may move no farther (1.517), (and a CC counter is now placed on all the units in O3), but the Russians in N2 and P3 must continue the Human Wave. The units in P3 can enter O3 (since it is a Side Location containing enemy units) or the Forward Locations O4 or P4. The three 4-4-7 in N2 can enter the Side Location O3 or the Forward Locations M3 or N3, but will be marked with a Range counter if entering M3. From N3 it will be able to enter M4 or N4.

1.6 MISCELLANEOUS: Good Order Elite and 1st-Line Japanese Infantry (including crews) are Stealthy, while Conscripts are Lax *[EXC: all Japanese Infantry that make a Banzai Charge are Lax for the rest of that Player Turn]*. A SSR may penalize certain units as being **Lax** to reflect their generally unprepared status. All Inexperienced Personnel and Conscripts are considered Lax. A Lax unit must add +1 to its Ambush status dr.

1.61 ORDNANCE & OBA: Japanese ordnance uses black TH numbers unless captured. Japanese OBA achieves an Accuracy dr of 1.

1.611 MMG/HMG/ATR: A captured Japanese ATR/MMG/HMG (including .50-cal) SW being fired by a non-Japanese squad/HS has its B# and Multiple ROF lowered by one.

EX: A Japanese ATR being fired by a U.S. Squad is subject to normal Captured use penalties.

1.612 DC: If otherwise able and allowed to, Japanese [EXC: DC Hero; see 1.424] may Place/Throw, DC into their own Location. DC Placed in the normal manner but in its possessor's own Location can attack only enemy/Melee units and terrain/Fortifications. Any DC attack (including MPh detonation; 1.424) made vs an AFV in the same Location, as the unit possessing that DC requires a Target Facing dr and a POSITION DR.

1.6121 A-T SET DC: During his onboard setup for a 1945 scenario vs other than Russians, the Japanese player may set up = 25% (FRU) of the DC in his OB unpossessed in paved/unpaved road [EXC: bridge] Locations. Such DC are termed A-T Set DC, [10] and are treated as normal Set DC except as stated otherwise. An A-T Set DC always uses HIP, even if its road Location contains no Concealment Terrain. An A-T Set DC is never revealed by enemy LOS, but is eliminated by OBA as per A9.74 or when the enemy searches its Location. It may be detonated only by the one Infantry unit (even a hidden T-H Hero) predesignated on paper during setup as allowed to do so; detonating it is not a "?"-Loss activity. An A-T Set DC may be detonated only as Defensive First Fire, and only as a vehicle enters its Location using the road. If the DC successfully detonates, the vehicle becomes a Blazing Wreck (or, if it has no Wreck side, is simply eliminated with no PRC survival); if Infantry are using Armored Assault with it they are considered attacked by a normal Set DC. Once set up, an A-T Set DC cannot be recovered.

1.613 DAISY CHAIN: Prior to his setup, the Japanese player may always convert any/all available A-T mine factors to Daisy Chains.

1.6131 A SSR may allow a certain number of A-T Mine factors to be placed across a road during the enemy MPh as a Daisy Chain. A Daisy Chain is a number of A-T

Mines tied together and pulled across a road while a vehicle is passing. These mines can be placed at any time during an enemy MPh (even as an enemy vehicle enters the placement hex), or during a friendly fire phase of the owner's Player Turn, by an unpinned Good Order Infantry unit possessing that Daisy Chain counter in an ADJACENT hex. Such placement is noted on paper, and not revealed to the opponent until one of his Good Order units has a LOS to the hex containing the Daisy Chain. If the placement is announced immediately after a vehicle expends MP to enter (or change VCA within) the placement hex, the placer then immediately rolls as per 1.6132. A Daisy Chain A-T minefield can attack only once; thereafter it ceases to exist. Any Daisy Chain counter, which has not yet attacked, can be recovered like any other SW. Placement of a Daisy Chain does not cause loss of concealment, but otherwise is considered use of a SW. The portage cost of a Daisy Chain is one PP per A-T mine factor. All other mine rules apply normally.

1.6132 The Daisy Chain A-T Mine attacks on the 36+ column of the IFT. No TEM are applicable. Vs an AFV any KIA results in elimination with a KIA of 4 or better resulting in a Burning Wreck, and any #MC result causes Immobilization. The corresponding AFV's lowest hull AF is used as an IFT positive DRM for KIA purposes only. Versus an unarmored vehicle, elimination is automatic, but a Burning Wreck applies only on a Final DR of ≤ 7 (i.e., ≤ KIA). Random Immobilization does not apply. An A-T Mine detonation has no effect on Personnel in the same hex other than PRC of the same vehicle who must roll for survival normally if the vehicle is eliminated, and Passengers/Riders who are attacked Collaterally with halved FP (i.e., 16) on the IFT if the vehicle is immobilized. An A-T Mine attack does not reduce the number of A-T Mine factors in the hex.

1.62 MORALE: Japanese are exempt from taking a PAAMC during CC/DFPh. They do not surrender in the RtPh. Unbroken Japanese units are immune from any LLMC. If while in a pillbox and a '2' is rolled before applying any DRM's due to any IFT attack they become "Battle Hardened", and are replaced by the next higher unit type if available. If already Elite, they become Fanatic. Japanese cannot create leaders.

1.621 NO-QUARTER/PRISONERS: in scenarios set in/after 6/42, No Quarter is always in effect; this applies to both the Japanese and their opponents. Japanese may conduct Massacres, but if taken prisoner themselves will not attempt Escape. A non-Russian Interrogating a Japanese MMC in a 1944-45 scenario may add a -1 DRM to his Interrogation DR. See also 1.641.

1.622 BATTLEFIELD INTEGRITY: If used, Battlefield Integrity applies unchanged.

1.631 The Japanese player in a daytime scenario may always use HIP for = 10% (FRU) of the MMC squad-equivalents in his onboard-setup OB and any SMC/SW [EXC: DC Hero; 1.424] that set(s) up stacked with them. in a night scenario the Japanese player may always use HIP for = 25% of his MMC squad-equivalents that set up onboard, even if he is not the Scenario Defender—and if he is the Scenario Defender he also receives Dummy counters equal to the number of MMC squad equivalents in his OB. These HIP capabilities are in addition to HIP granted for any other reason(s).

1.632 PILLBOX: A pillbox set up in Concealment Terrain by the Japanese player may always use HIP, and is revealed as if it were set up in jungle. The use of HIP includes the pillbox's occupant(s), and is in addition to the percentage of units otherwise allowed to use HIP. Whenever the Japanese player sets up a pillbox he also receives the use of a tunnel (GIA 161.6), which has that pillbox as one of its entrances. He cannot use the tunnel (i.e., it does not exist) if it does not otherwise meet its standard "setup" requirements (all tunnel rules [161.6-.66] apply in the normal manner), and he always has the option of secretly recording that it does not exist. A Japanese unit in a pillbox may move through its tunnel even if an enemy unit is in the pillbox's hex. More than one tunnel may connect to the same Location.

1.64 Hand-to-Hand CC: Whenever ≥ one unbroken Japanese Infantry/Cavalry unit is the ATTACKER in CC/Melee or Ambushes the enemy in CC, that CC/Melee automatically becomes *Hand-to-Hand* unless every such Japanese unit participating in it was Ambushed in that phase and/or is pinned. However, Hand-to-Hand CC can never be used by/vs any vehicle(s)/PRC/pillbox-occupant(s). Each Japanese Hand-to-Hand CC attack receives an extra -1 DRM unless every Japanese Infantry/Cavalry unit participating in that attack is pinned/Unarmed.[11] A Reduced-Strength Japanese unit retains its Full-Strength CCV. See also 1.62.

1.641 HARA-KARI: Immediately prior to resolving a CC Capture Attempt vs a Japanese Personnel unit, that Japanese unit—even if it had declared a CC attack (but

not if it has already made that attack)—may attempt to eliminate itself. If berserk/heroic it may automatically eliminate itself. Otherwise it must pass a NMC, to which the following DRM can apply: -2 if it is defending together with another SMC that has just eliminated itself; -1 if it is Inexperienced; +1 if it is Unarmed. If a SMC and MMC (or two SMC) are defending together, the best SMC must attempt (or commit) Hara-Kari first; for this purpose, all heroic types are considered equal (and better than any non-heroic unit type). The opponent does receive Casualty VP for each unit eliminated by Hara-Kari [EXC: non-leader Hero; 1.65]. If a unit attempting Hara-Kari fails its NMC, it may not make a CC attack in that phase and that Capture attempt vs it receives an additional -1 DRM (maximum of one such DRM per Capture attempt).

1.65 VP: The opponent does not gain Casualty VP when a Japanese squad or infantry-crew is reduced, nor when a reduced infantry-crew is exchanged for a broken vehicle-crew. An eliminated Japanese leader grants Casualty VP as per its currently face-up side. An eliminated Japanese hero of any type [EXC: heroic leader] grants no Casualty VP. See also 1.641.

1.66 DYO: For leadership quality, use 9-0 (instead of 8-0) leaders as the basis for the Japanese OB, and an 8-0 for each 7-0 normally allotted. The specially allowed uses of HIP (1.422; 1.631-.632) cost no purchase points. Generally, Japanese Conscripts should appear in a scenario OB only to represent normally non-combatant (e.g., base and construction) Japanese troops. Japan's allies, such as the Indian National Army or Chinese "puppet" troops, should be represented by Axis Minor units (which for the most part should be Conscripts) and rules, and are not considered Japanese for any purpose.

1.661 AFV: The BPV (prior to any addition for optional armament) of each AFV purchased by the Japanese player for a 1944-45 scenario is halved (FRU) if that AFV will be set up beneath a separately purchased Trench counter.

1.662 OBA: The final cost of a Japanese Bombardment is further increased by 50% (FRU), as is the final cost of each Japanese OBA battery that will have Creeping Barrage capability.

1.6621 AIR SUPPORT: Japanese Air Support availability is determined by SSR. When available the Japanese may roll randomly to determine the number of Aircraft in the form of Fighters/Bombers or both. Japanese Observation Planes may be used only for OBA of 100mm, and their availability is 1937-43 inclusive.

1.6622 in any scenario where the Japanese player is given the possibility of air support he rolls one die during the initial Rally Phase of each game turn. If he rolls a "1" he receives air support *anytime* during the *current* game turn. Once he has received air support he may not continue to roll for additional air support in later turns.

1.6623 Once air support has been rolled, the Japanese player rolls one die again to determine the number of aircraft attacking as per the following table:

Die Roll	Aircraft
1	3
2-4	2
5, 6	1

1.66231 Once the number of Aircraft is determined he rolls again on the same table to determine how many are carrying bombs aboard.

1.6624 Zeroes have an unlimited movement capability and a clear LOS to any hex on the board *(Exception:* the lower level of multi-level buildings). Zeroes, however, may *not* attack units in Jungle *(ie woods)*, Jungle-roads *(same as forest-roads)*, or Palm Trees *(same as Orchards 118),* nor may any ground units in those hexes fire at Zeroes. Zeroes may move into attack position during any friendly Prep or Defensive Fire Phase at no penalty to their attack capability. Normal rules for Air-Support [139] apply.

1.663 FORTIFICATIONS: The BPV of each "?", trench (excluding A-T ditch), pillbox and tunnel purchased by the Japanese side is halved (FRU). The halved pillbox cost includes its Inherent tunnel (1.632), even if that tunnel is not used. The BPV of all wire and all mine factors [EXC: A-T factors used as Daisy Chains] purchased by the Japanese side is increased by 50% (FRU).

1.664 PARATROOPERS: Japanese paratroopers are represented by either 5-3-8 Assault Engineers or 4-4-8 Elite MMCs and may not be purchased prior to 1942. Japanese paratroopers retain possession of (i.e., drop with, as Inherent contents of a 5/8" parachute) LMG and light mortars. Japanese 1/2" parachutes may not drop as part of 5/8" parachute Sticks; instead, they must drop in separate Wings (of five Sticks each), with each Stick composed of one or two 1/2" parachutes.

2. JUNGLE

2.1 Whenever PTO Terrain is in effect, all woods become jungle. If not defined as Light, the jungle is considered Dense (2.2). The term "jungle" by itself refers collectively to both types. Jungle is treated as woods except as stated otherwise. Jungle is a two-level obstacle. If jungle is in effect for a DYO scenario but its type is not specified/agreed-upon, make a dr prior to setup. If the dr is 3 use light jungle; otherwise use dense.

2.2 DENSE JUNGLE: A dense-jungle hex has a +2 TEM. Infantry/Cavalry stacking limits are reduced to two (Overstacking can still occur) in dense-jungle hexes that do not contain a road/building. A dense-jungle hex is Inherent Terrain, thus blocking LOS along its hexsides *[EXC: same-level LOS may be drawn along any such hexside that is completely clear of land terrain (e.g., a hexside pond, or river hexside, that has no land terrain touching that hexside); such hexsides are not part of the dense-jungle Inherent Terrain].* A non-ADJACENT ground unit at a different level than that of a dense-jungle road hex's Base Level can have a LOS to/through that hex via its road portion only if that LOS is along a Continuous Slope. An Aerial unit has no LOS to any non-Aerial (including the in-hex road) portion of a dense-jungle hex. Reciprocity applies.

2.21 ENTRY: Normal woods entry costs (including those for path/TB if applicable) apply to entering dense jungle.[12] However, horses may be "led" into a dense-jungle Location only if using a road, path or TB, while Cavalry may enter only if using a road or path (see also 2.4). The only vehicles that may enter a dense-jungle Location without using a road/TB are fully tracked AFV *[EXC: tankettes and Carriers are NA]* and dozers. These vehicles can also create TB in dense jungle (see also 2.211).

2.211 BOG: A vehicle is required to take a Bog Check upon entering or changing its VCA in dense jungle, a +2 DRM must be added to its Bog DR *[EXC: this DRM does not apply to a dozer that declared it was dozing and then entered dense jungle by spending its entire printed MP allotment other than any for changing-VCA; nor does it apply to a dozer that changes VCA while dozing in dense jungle].*

EX: An M4 Sherman tank that enters dense jungle by expending half of its printed allotment while not using a road or TB receives a +6 Bog DRM (+3 [entry using half its MP allotment] + 2 [dense jungle] + 1 [normal ground pressure] = +6). If it instead enters it by expending its entire MP allotment it will receive a +3 Bog DRM (+2 [dense jungle] + 1 [normal ground pressure] = +3). If the Sherman were a tankdozer, entry by expending its entire MP allotment would incur the same total +3 Bog DRM unless its owner had first declared that it would doze, in which case the +2 dense-jungle DRM would not apply. Nor would that +2 DRM apply if the dozer changed VCA in dense jungle, provided again that its owner had first declared it to be dozing. in all cases, a partial TB would be placed in the dense-jungle hex when (and from the hexside across which) the tankdozer entered, but that TB would be removed if the vehicle then bogged.

2.212 BYPASS: Bypass is NA in a dense-jungle hex *[EXC: an amphibious vehicle may use VBM along a water hexside (as defined in 2.2) by expending one amphibious MP].*

2.213 AERIAL: Even a $^1/2$" parachute must take a Landing MC using a Morale Level of 7 when it lands in dense jungle. Any chute that fails its Landing MC in dense jungle is eliminated (along with its contents).

2.22 STRAYING: in a daytime scenario, a non-subterranean Infantry unit/stack that in its MPh is in an Interior dense-jungle hex (i.e., a woods hex adjacent to six other woods/brush/marsh hexes) and wishes to move to a new hex must make a Movement DR (and hence possibly a Straying DR as well) unless it has already done so in its current MPh, is conducting a Banzai Charge (1.5), or is/contains a unit defined as a Partisan. A Strayer instead becomes TI if the ADJACENT Location it must enter next is not a jungle/bamboo hex.

2.23 FIRE GROUP: A unit in dense jungle has restricted FG capabilities.

2.24 MORTAR: No mortar may fire from a dense-jungle (including such a jungle-road) hex.[13]

2.3 NIGHT: No LOS exists at night between adjacent dense-jungle hexes except due to Illumination/Gunflash. Neither starshells nor IR can illuminate the non-Aerial portion of a jungle hex *[EXC: they can Illuminate the Bypass area of light jungle hexes in which FIRES/FLAME: (A Fire or Flame Illuminates only its own Location) does not apply].*

2.4 CAVALRY: Cavalry may Gallop in jungle only along a road, and may not Charge in a jungle hex.

2.5 FIRE: The Kindling and Spread numbers for jungle are "12".

2.6 SHELLHOLES: Shellholes can occur in jungle, in which case the jungle terrain (and any Flame/Blaze already in it) is considered to no longer exist at all.

2.7 CLEARANCE: At the end of the CCPh, one armed MMC in each jungle/bamboo Location may make a Clearance DR in an attempt to Clear (i.e., create) a Path, provided that during the previous MPh/DFPh (whichever came last) it

became TI in a declared attempt to do so. However, a unit may not make (or modify) a Path Clearance DR while pinned, entrenched, PRC, possessing > its IPC or any ⁵/₈" counter, in Crest status, in a hex with a non-captured Known enemy unit, in a wire/building/minefield Location, above a Panji counter (9.71), not in Good Order, and/or not TI for path Clearance purposes; nor may it do so if during the current Player Turn it has fired, directed fire, been marked for Opportunity Fire or expended MF. A unit is Lax and subject to Hazardous Movement while TI for path Clearance. The only DRM possible for a Path Clearance DR is +x for Labor Status, +y for leadership, +1 if CX, +1 if the hex is bamboo, and -1 if the hex is light jungle. If the Clearance DR is successful, a Path counter is placed in the MMC's hex connecting any two of its hexsides. A Path counter is removed only when its Location contains a Shellhole/Rubble counter or Terrain Blaze. All paths in the same hex are assumed to connect to each other, and to all roads/TB, in that hex. A Path counter is equivalent to a printed path in all respects.

2.8 MISCELLANEOUS: Special rules for Fortification HIP, Detection, Recovery and Ambush apply in jungle; see 2 (Jungle), 4 (Palm Trees), 5 (Huts), and 6 (Kanai) respectively.

3. BAMBOO

3.1 Whenever PTO Terrain is in effect, all brush becomes bamboo. Bamboo is treated as dense jungle except as stated otherwise.

3.11 BROKEN UNITS: A broken unit may claim a -1 Rally DRM in bamboo only if in a pillbox. A broken unit is not required to rout to the nearest bamboo hex.

3.2 ENTRY: Infantry may enter bamboo only via "Minimum Move" (see 3.21) during the MPh, or during the APh via "vs Difficult Terrain" (see 3.211). Infantry may "lead" horses into/out-of bamboo only along a path/TB, and Cavalry may enter/exit bamboo only along a path. Manhandling into bamboo is NA except along a TB. For Defensive Fire purposes, the number of MF considered expended during a Minimum Move into bamboo equals the unit's printed (or Inherent) MF allotment plus one (or plus two, at night).

3.21 MINIMUM MOVE: An Infantry unit retaining at least one MF after deducting for portage costs exceeding its IPC, may declare a Minimum Move of one hex during its MPh, even if CX or lacking the MF to pay the full entry cost of the hex *[EXC: Infantry pushing a Gun or loading/unloading may never make a Minimum Move]*. After a unit has entered a hex by Minimum Move and undergone all Defensive Fie, all unbroken survivors become both pinned {GIA 142.6 if used} and CX (even if CX previously). If the entry cost of a hex is defined as "all" of a unit's MF and there is still yet another cost to be paid beyond that, a Minimum Move can still be made. However, a Minimum Move cannot be made to enter terrain whose entrance cost is listed as NA (Not Allowed). in any case, the unit is considered to have spent the actual MF cost of entry.]

3.211 vs. DIFFICULT TERRAIN: An advance into any hex whose MF cost (excluding SMOKE) is ≥ four MF or all of a unit's available non-Double Time MF allotment (whichever is less) may not be made if the unit is already CX *[EXC: Climbing, Deep Stream Entry]*; otherwise it may advance but becomes CX in the process. in no case may a unit advance if it retains no MF after deducting for portage costs.

[EX: A squad carrying five PP has only two MF and therefore must become CX to advance into a hex requiring two MF to enter during the MPh (unless it is accompanied by a leader who adds two MF and one IPC to the squad; thereby leaving it with five MF)]

3.22 STRAYING: Straying can occur in an Interior bamboo hex (i.e., a brush hex adjacent to six other woods/brush/marsh hexes) as per 2.22.

3.3 LOS/TEM: Bamboo is a one-level obstacle and normally has a +1 TEM. However, its TEM is -1 for any DC, Bombardment, or ordnance/OBA HE attack vs an unarmored target in it. *[EXC: not for any type of HE Equivalency or Specific Collateral Attack, nor vs a Partially Armored AFV]*. The FP of any HE or MTR attack is increased by one column and also receives a -1 TEM for Air Bursts (109.6) on the IFT vs targets in a Bamboo hex.

3.4 GUN: A Gun set up in bamboo is never considered Emplaced, but may still use HIP as per unless otherwise prohibited. A non-vehicular Direct-Fire Gun (5/8" counters) may not both change CA and fire in the same fire phase while within a Bamboo hex.

3.5 FORTIFICATIONS: Neither wire nor entrenchments may be placed in bamboo, but pillboxes/mines or Panji (9.) may. See also 2 for HIP.

3.6 FIRE: The Kindling (102.2) and Spreading numbers (102.4 & 59.4) for bamboo are "10". However, the applicable EC DRM (102.2-102.4) is doubled when checking for Kindling in, and for Fire Spreading to/within, bamboo.[14]
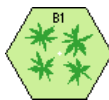
EX: Infantry attempting to Kindle bamboo during Wet EC must add a -4 EC DRM to their Kindling DR (-2 [Wet EC DRM] -2 [bamboo] = -4).

**3.7 PARACHUTES:** All parachutes landing in bamboo are treated as if landing in woods.

3.8 MISCELLANEOUS: Special rules for FG, Ambush, and trip flares apply in bamboo; see 3, 4, 5, 6 and 8 respectively.

4. PALM TREES

4.1 Whenever PTO Terrain is in effect, all orchard hexes become palm tree hexes[15]. Each Palm Tree hex is treated as a normal Orchard hex except as stated otherwise. Palm trees are always in season, and their Kindling and Spread numbers are "11". AFV Riders are allowed in palm tree hexes.

5. HUTS
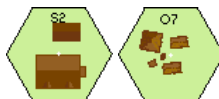
5.1 Whenever PTO Terrain is in effect, each wooden Single Story House *(i.e. All single hex buildings which do not contain a staircase symbol are considered one level obstacles to LOS)* **whose hex contains two separate buildings within the hex**, [EX: hex 4S2 & 37O7] but no partial building depiction, becomes a hut. Except as stated otherwise, huts are treated as wooden Single Story Houses (unless Collapsed; 5.51) and all huts in the same hex are considered one hut for rules purposes.

EX: If PTO Terrain is in effect, 32E3 becomes a hut hex but the other building hexes do not. The small outbuilding in D1 can never be a hut, because that hex also contains the partial overhead depiction of another building.

5.2 LOS: A hut is a one-level +1 LOS Hindrance like an out-of-season orchard, but only if the LOS crosses one building depiction in that hex and the hut is not Collapsed [5.5]. However, a hut (whether Collapsed or not) can thusly Hinder LOS/LOF even to a unit Bypassing in that hut's Location unless the viewing/firing unit is also in that same Location and is not in Bypass. For a Collapsed hut see also 5.51. A hut is never a LOS obstacle.

5.3 TEM: A hut has a +1 TEM unless it is Collapsed. A hut may not be Fortified.

5.31 HEAT: A hut is not considered a building vs HEAT ammunition. However, if playing under GIA rules, firing HEAT at a vehicle/Gun in a non-Collapsed hut, its TEM still applies for TH purposes.

5.32 BOMBARDMENT/FFE attacks: A hut has a Morale Level of 7 vs any FFE Bombardment, and Collapses if it fails such a MC. in addition, a Flame is placed in the hex if the Original Bombardment MC DR is ≥ 10.

5.4 AFV/DOZER ENTRY: Any Mobile AFV neither using VBM nor carrying a Rider(s) may enter a non-Collapsed hut, but only if it is BU and not Recalled. Such entry costs are ½ the normal entry to enter a wooden building hex and does not cause a building-entry Immobilization dr, nor incurs any risk of falling into a cellar, and automatically Collapses that hut before Defensive Fire ensues. A Mobile dozer (whether armored or not) may enter a hut in the same manner as an AFV *[EXC: the dozer need not be BU]*, and with the same ensuing effects/results *[EXC: it never takes the PTC mandated by 5.5 for an AFV]*. For entry of a Collapsed hut see 5.51.

5.41 SETUP: Any AFV may set up in a hut, but that hut will immediately Collapse if the FV exits it or changes any CA while in it.

5.42 VBM & OVR: A hut, whether Collapsed or not, may be Bypassed in the same manner as a building, but must be entered in non-VBM fashion by any vehicle that wishes to OVR it/its-occupants.

5.43 AERIAL: A hut provides a +1 Crash drm vs a glider, but does not cause a NMC to a 5 /8" parachute, that lands in its Location. A glider that lands in a non-Collapsed hut Location causes that hut to Collapse.

5.5 COLLAPSE: A hut cannot be rubbled. However, any KIA caused by a DC or HE attack *[EXC: any Collateral/Residual FP attack; an attack using the Vehicle Target Type]* vs a non-Collapsed hut Location (even vs a Bypassing unit therein) causes it to Collapse after fully resolving that attack vs all occupants of that Location. A non-Collapsed hut also Collapses due to AFV/glider entry/CA-change (5.4-.43) or when it becomes Blazing (5.6). Place a Collapsed counter on such a hut. Every (even a friendly/heroic/broken/berserk/Japanese-SMC) Infantry unit occupying a hut when it Collapses must take a separate PTC (Pinned-Task-Check), as must the Inherent crew (only) of an AFV *[EXC: dozer; 5.4]* that enters or changes CA in a hut thereby causing its Collapse. Every unit (even if Inherent) is assumed to have a Morale Level of 8 when taking a Collapse PTC; the crew of a CT AFV receives a -1 DRM. Collapse PTC are taken after fully resolving all other effects of the attack (or of the AFV entry, including any OVR) that caused the Collapse, but before Defensive Fire ensues if it is the MPh. A failed Infantry-unit Collapse PTC pins that unit, even if it is

normally immune to pin results (a pinned broken unit would be unable to rout). A failed Inherent-crew Collapse PTC activates 5.52 & 5.521 for that crew and every Passenger on that AFV *[EXC: they all immediately become CE, and if it is the MPh they and the AFV immediately end their MPh in the hex*; indicate their CE status and place a Pin counter on the AFV.[16]

5.51 A Pin result vs the CE Inherent crew of a CT AFV forces it to remain BU during that Player Turn, thus subjecting it to the Case I (BU) To Hit DRM. The Inherent crew of an OT AFV remains CE vs a Pin result, but during that Player Turn is subject to the Case D To Hit DRM and the halving of all MG/IFE/FT/Canister FP, as well as prohibiting it from using Intensive Fire and Multiple ROF. An Inherent crew that suffers a Pin result when attacked through an unarmored Target Facing (even if only hull or turret/upper superstructure) is subject to the same penalties as that of an OT AFV. A vehicle itself can never be pinned, nor can its Inherent crew; however, leave the Pin counter on the vehicle to show that the above penalties apply.

5.511 Any Infantry unit that is Pinned by Collapse fires MG/IFE/Canister as Area Fire, must add +2 to its To Hit DR (To Hit Case D), and cannot attack with a FT/MOL/DC, change a weapon's CA (9.21), or use Intensive Fire or a Multiple ROF weapon.

5.52 Except as stated otherwise, a Collapsed hut is still considered a hut but is not considered a building. A Collapsed hut has no TEM but is a normal (i.e., not one-level) +1 LOS Hindrance across the building depiction(s) unless it is Blazing; hence it is not Open Ground. However, a Collapsed hut does not Block but does Hinder LOS/LOF to a unit Bypassing in that hut's Location if the viewing/firing unit's elevation is > than that of the Bypassing unit and that LOS/LOF does not lie along a continuous slope. Any type of unit *[EXC: motorcycle Rider; wagon]* may enter a non-Blazing Collapsed hut (but a non-tracked vehicle doing so must check for Bog). A Collapsed hut cannot be Cleared. The only Fortifications allowed in a Collapsed hut Location are wire/minefields or Panjis (9.). [17] A Collapsed hut is Concealment Terrain only for Infantry (and their possessed SW), Dummy stacks and Emplaced Guns. Control of a Collapsed hut counts toward a players hut/building Control Victory Conditions, as will Control of its hex if it has been eliminated (5.7) or set ablaze by their opponent.

5.6 FIRE: A hut's Kindling and Spread numbers are "6" and "7" respectively, even if Collapsed. A Flame can be created in any hut, as well as via the following methods. Any Small Arms PBF/TPBF, MOL, MG, IFE, DC or HE attack *[EXC: AP HE Equivalency; a Collateral/Residual-FP attack]* vs any hut Location (even vs a Bypassing unit therein) causes a Flame in that hut if the Original colored dr of its Effects DR is a 1. Small-Arms/MOL/MG/IFE can thusly cause a Flame even if part of a FG; however, if using only Small Arms/MOL, one unit in that FG would still have to qualify for PBF/TPBF. If > one hut Location can be set Aflame by the same attack, use Random Selection if a Flame result occurs. A FT attack vs any hut Location automatically causes a Flame in that hut if its Original Effects DR is < its X#. Whenever WP is placed in any hut Location, make a subsequent DR (using the applicable DRM listed therein) even if EC are not Dry or Very Dry. Whenever a Flame in a non-Collapsed hut becomes a Blaze that hut immediately Collapses. Marking it with the reverse side of a Collapsed Hut counter indicates a Blazing hut. See also 5.32 and 5.61-.8.

EX: A Small Arms attack vs a hut Location that results in a "1" colored dr in its IFT DR automatically causes a Flame in the hut (even if it is Collapsed) provided that PBF/TPBF applied (even as part of a FG that only partially qualified for PBP/TPBF). Note that a MG, IFE or HE attack vs a hut can cause a Flame even if not using PBF/TPBF.

5.61 RAIN: Since non-Collapsed huts are buildings, Flame creation in them is unaffected by EC DRM. However, once rain has occurred, Flame creation as per 5.6 no longer applies to Collapsed huts; i.e., only the method available is by COI 102 which then apply to them (even if they Collapsed after the rain had ceased).

5.62 BACKBLAST: A PF/BAZ/PSK/RCL may be fired from inside a non-Collapsed hut. Firing it thusly automatically causes a Flame in the hut, and causes a one FP attack within the hex vs. the occupants utilizing the same DR as that used in the attack. Firing it thusly from a Collapsed hut causes neither the Flame nor the one FP attack. Note, however, that it would still apply in all cases when firing a RCL.

5.7 SHELLHOLES: Shellholes can occur in a hut Location, in which case the hut (and any Flame/Blaze already in it) is considered to no longer exist at all.

6. KUNAI

6.1 Whenever PTO Terrain is in effect, all grain becomes kunai.[18] Kunai is treated as brush except as stated otherwise. The Kindling and Spread numbers of kunai are "9" and "8" respectively. Special rules for Fortification, HIP, FG, and Ambush apply in kunai; see 2, 4, 5 and 6 respectively.

7. SWAMP

7.1 Whenever PTO Terrain is in effect, each

marsh hex that is *adjacent* to one jungle hex becomes a swamp hex. Otherwise the marsh hex is treated normally. Swamp is treated as "non-flooded" marsh except as stated otherwise. The water depth of a stream/river does not alter the effects of a swamp Location. Swamp is never considered to be a Hindrance or Open Ground, or river or mudflat terrain.

7.2 LOS/TEM: Swamp is always a two-level obstacle with a +1 TEM *[EXC: vs Air Bursts (and Bombardment) its TEM is -1]*. in addition, a DC or ordnance-HE attack *[EXC: mortar; HE Equivalency; an attack that used the Vehicle Target Type]* vs an unarmored target in a swamp Location is halved on the IFT.

7.21 SIGHTING TC: Like woods, swamp provides +3 drm vs an Observation Sighting dr (GIA 150).

7.3 ENTRY: Swamp may be entered by amphibious vehicles, and by boats as if the swamp were a Water Obstacle. When a boat is sunk in a swamp, any Passengers aboard must take an immediate NMC as per 126.59 with the following exceptions. Passengers that fail are broken not eliminated, and must rout in the next rout phase. Passengers that pass may continue to move 1 hex further. All SW/Guns of a sunk boat are lost even if in fordable water. The surviving Passengers of a boat sunk in Swamp immediately become Fording Infantry in that Water Obstacle Location. The cost for fording a Swamp hex is 3 MF's.

7.31 BOG: Each non-swamp/marsh/Water-Obstacle hex that is Accessible to a swamp hex, and whose Base Level is ≤ that swamp hex's Base Level, is a Bog hex vs a vehicle that is not on a road. A thusly-accessible stream hex would be a Bog hex due to swamp only if the stream were dry; if not dry, would apply for Bog purposes.

7.32 AERIAL: All parachutes landing in a swamp hex are treated as if landing in dense jungle. Infantry units that are broken *before* they land in a swamp hex are eliminated. Any SW/Gun that lands in a swamp hex is eliminated. A glider landing in a swamp hex receives a +3 Crash drm [140.6] (i.e., +1 for landing in "marsh"[i.e. Swamp] and +2 for landing in "woods" [i.e. Jungle]) upon landing.

7.4 MISCELLANEOUS: Special rules for FG apply in swamp; see 3.

8. RICE PADDIES

8.1 Rice paddies (hereafter referred to as paddies) are a terrain feature of Overlay 3 and of each overlay that's ID is prefixed by "RP". A paddy consists of two parts: the interior, which is brownish-green on the overlay; and the banks, which are the narrow Open-Ground-color areas along the hexsides of that hex. Units in the interior of a paddy are said to be in it, while those on (as opposed to just crossing) its banks are placed above a Bank counter (8.21) in the hex. Being "in" a paddy hex refers to being in either/both position(s). Units in a paddy hex are at level 0 (assuming the overlay is on level 0 terrain). Paddies will always be defined by SSR as being Drained, Irrigated or In-Season[19]. For DYO situations in which this information is not known, make a dr to determine the state of all paddies in the scenario:

RICE PADDY STATE	
Final dr	**State**
≤2	In-Season
3-4	Drained
≥5	Irrigated
DRM's	
-2	EC are Dry or Very Dry
-1	EC are Moderate
+2	EC are Wet/Overcast/Mud

8.11 DRAINED: The interior of a Drained paddy is Open Ground aside from the cover provided by its banks; see 8.3.

8.12 IRRIGATED: No Fortification *[EXC: mines/wire or Panji; 8.7]*, unhooked non-vehicular Gun (unless dm/being-Animal-Packed [10.1]), Galloping/Charging Cavalry, Pushed/Ridden motorcycle or ridden bicycle is allowed in an Irrigated paddy. Unpossessed equipment *[EXC: horse; boat]* in an Irrigated paddy is eliminated unless in a vehicle or being Animal-Packed (10.1). The interior of an Irrigated paddy is Mud (see 8.5) and also Bog terrain; in addition to the +1 DRM for mud, the Bog DR of a vehicle in an Irrigated paddy receives an extra +2 DRM for being in such terrain. Any SW/Gun of ≥ 3 PP manned by Infantry in an Irrigated paddy has a restricted field of fire much like a VCA. Use a HW direction counter to identify the SW CA. SW's firing outside this CA must change its CA setting and fire with half effectiveness. The FP of all DC and ordnance/OBA HE attacks *[EXC: one using HE-Equivalency]* vs an Irrigated paddy hex is halved on the IFT. A SMOKE counter may not be placed in an Irrigated paddy hex. The MF cost of a boat in an Irrigated paddy remains the same as in any shallow-water obstacle.

8.13 IN-SEASON: The interior of an In-Season paddy is Grain; see 8.2, 8.4 and 8.6. However, it is Concealment Terrain only for Infantry (and their possessed SW), Dummy stacks, Fortifications and Emplaced Guns. Mud can exist in In-Season paddies even though their interior is not Open Ground; see 8.5.

8.2 ENTRY: A unit enters a paddy hex either onto its banks (8.21) or INTO its interior. Except as stated otherwise (see 8.12, 8.22 and 8.8), the only units that may

set-up-IN/enter-INTO a paddy are Infantry, Cavalry, Cycle Riders and fully tracked vehicles. Such Infantry may not be riding bicycles but may be "leading" horses. in addition to the possible cost for crossing a bank hexside, the IN-hex COT of a paddy is dependent on whether the interior is Drained, Irrigated or In-Season: if Drained, normal Open Ground MF/MP costs apply; if Irrigated, the entering unit must expend twice the cost of entering Open Ground mud; if In-Season, the unit must expend grain MF/MP.

8.21 BANKS: A Bank counter does not create a new Location or change stacking limits. The only units that may cross a bank hexside are those allowed to enter INTO a paddy (8.2) *[EXC: bicyclists may cross a bank hexside if they are entering either onto a Bank counter or a road]*. The only units that may set-up/enter/remain above a Bank counter (thereby avoiding the interior of that paddy) are Infantry (even if riding-bicycles/"leading"-horses, but not if Manhandling a Gun/boat), Cavalry, and Cycle Riders. Unless otherwise prohibited (see 8.2 and 8.211), such units may move (/rout/advance/Withdraw-from-CC if Infantry) in any (combination) of the following ways:

8.2101 If the unit is currently in a paddy or in a non-paddy hex, it may enter directly onto a Bank counter in an adjacent paddy hex provided it crosses a bank hexside as it enters that hex. The normal cost for this is one MF (or three MP for a cycle) to cross that bank hexside one MF (or three MP) to enter onto the Bank counter. Mud MF/MP can also apply if EC are Mud; see 8.5.

8.2102 If the unit is currently in a paddy or in a non-paddy hex, it may enter directly INTO an adjacent paddy hex. The normal cost for this is one MF/MP *[EXC: three MP for a cycle]* if crossing a bank hexside plus the IN-hex COT (8.2) of that hex. Mud MF/MP can apply; see 8.5.

8.2103 If the unit is currently in a paddy, it may directly enter an adjacent non-paddy hex. The normal cost for this is one MF/MP *[EXC: three MP for a cycle]* to cross that bank hexside plus the COT of the non-paddy hex. Mud MF/MP can also apply if EC are Mud.

8.2104 If the unit is currently in a paddy, it may enter directly onto a Bank counter in that same hex. The normal cost for this is one MF (or three MP for a cycle). Mud MF/MP never apply.

8.2105 If the unit is currently on a Bank counter, it may enter directly onto a Bank counter in an adjacent paddy hex provided it crosses a bank hexside as it enters that hex. The normal cost for this is one MF (or three MP for a cycle). Mud MF/MP can also apply if EC are Mud; see 8.5.

8.2106 If the unit is currently on a Bank counter, it may enter directly INTO an adjacent paddy hex provided it crosses a bank hexside as it enters that hex. The normal cost for this is one MF (or three MP for a cycle) to cross that bank hexside plus the IN-hex COT (8.2) of that hex. Mud MF/MP can apply; see 8.5.

8.2107 If the unit is currently on a Bank counter, it may directly enter an adjacent non-paddy hex. The normal cost for this is one MF (or three MP for a cycle) to cross that bank hexside plus the COT of the non-paddy hex. Mud MF/MP can also apply if EC are Mud.

8.2108 If the unit is currently on a Bank counter, it may enter directly INTO that same hex. The normal cost for this is the IN-hex COT (8.2). Mud MF/MP never apply.

EX: Squad A wishes to enter INTO oM4 and oM3. If the paddies are Drained, as per 8.2102 it will expend two MF (1 [cross bank hexside] + 1 [enter INTO Drained paddy] = 2) to enter each hex. If the paddies are Irrigated, each hex will cost four MF (l [cross bank hexside] + 1 ¹/2 [Open Ground mud] [enter INTO Irrigated paddy]} = 4). If the Paddies are In-Season, each hex will cost 2 ¹/2 MF (1 [cross bank hexside] + 1 ¹/2 [enter INTO In-Season paddy {grain}] = 2 ¹/2. If squad A wished instead to move/rout along the banks of oM4 and oM3, as per 8.2101 its cost to enter onto a Bank counter in oM4 would be two MF (1 [cross bank hexside] + 1 [enter onto Bank counter] = 2), and its cost to then enter onto a Bank counter in oM3 would be one MF (8.2105) regardless of whether the paddies are Drained, Irrigated or In-Season. As it entered each hex it would be placed on a Bank counter.

EX: If the paddies are In-Season and squad B wishes to enter INTO oM3, it can do so in any of three ways: by entering directly INTO oM3 from above the oL3 Bank counter (8.2106), at a cost of 2 ¹/2 MF (1 [cross bank hexside] + 1 ¹/2 [enter INTO In-Season paddy] = 2 ¹/2); by entering onto the banks of oM3 (8.2105) and then going INTO that hex (8.2108), at a cost of 2 ¹/2 MF (1 [enter onto Bank counter] + 1 ¹/2 [enter INTO In-Season paddy] = 2 ¹/2); or by entering first INTO oL3 (8.2108) and then INTO oM3 (8.2102), at a cost of four MF (1 ¹/2 [enter INTO In-Season paddy] + 1 [cross bank hexside] + 1 ¹/2 [enter INTO In-Season paddy] = 4).

EX: Squad C must expend at least two MF to enter onto the oL3 Bank counter, but can do so in any of three ways: as per 8.2101 (1 [cross bank hexside] + 1 [enter onto Bank counter] = 2 MF); as per 8.2104 and 8.2105 (1 [enter onto Bank counter in oL2] + 1 [enter onto Bank counter in oM3] = 2 MF); or as per 8.2102 and 8.2104, which

would cost it three MF (one MF to cross the bank hexside INTO oL3, plus the applicable IN-hex COT of oL3, plus one to enter onto the Bank counter).

EX: Since hexside oJ4-oK5 is not a bank hexside, as per 8.2102 squad D may enter directly INTO oJ4 at a cost of one MF if the paddies are Drained, three MF if they are Irrigated, or 1 ¹/2 MF if they are In-Season. If squad D instead wished to enter onto the banks in oJ4, it would first have to enter INTO that hex (8.2102) and then, in a separate expenditure, pay one MF to go onto a Bank counter (8.2104). If squad D were Riding a cycle and wished to enter onto the banks in Drained paddy hex oJ4, it would first have to expend three MP to enter INTO that hex and then separately spend three more MP to go onto a Bank counter.

8.211 RESTRICTIONS: A unit above a Bank counter may not attempt to Recover/Scrounge anything in the paddy, nor may it participate in Transfer, Set a DC, Guard a prisoner in the paddy, or voluntarily become TI (thus prohibiting it from conducting any activity that requires TI status; e.g., Entrenching, Clearance, Searching, [Un]Packing [10.3]). CC Withdrawal onto a Bank counter is NA.

8.2111 INFANTRY: Each Infantry unit above a Bank counter is subject to Hazardous Movement penalties (and thus cannot gain "?") the entire time it is above that counter; should the unit also be engaged in another Hazardous Movement activity (e.g., being in Column), these penalties are not cumulative with each other. An Infantry unit above a Bank counter is considered to enter INTO its hex only (and does so immediately) when it expends the applicable IN-hex COT to do so (including during the RtPh/APh) or when it becomes broken or pinned, enters into Melee or its Column Disbands. If thusly forced INTO its hex by becoming pinned or broken during its MPh, the unit is assumed to expend the COT for such entry even if exceeding its remaining MF (this does not force placement of a CX counter), is no longer subject to Hazardous Movement, and (unless pinned {GIA}) is subject to the –2 MOG/(-1 NAM DRM {GIA}) until its MPh ends. Aside from normal APh restrictions, Infantry *[EXC: see 8.22]* may freely enter-onto/exit-off Bank counters during the APh.

EX: See the 8.2108 illustration, and assume the paddies are Irrigated. If squad B had already expended two MF (even if using Assault Movement) and then been pinned or broken by Defensive Fire in its present position, it would have immediately entered INTO oL3 at a cost of three more MF (thus determining how many more times it could be Defensive First Fired on) but would not become CX.

8.2112 CAVALRY/CYCLES: Cavalry may Gallop/Charge neither onto nor off of a Bank counter. Personnel may mount a horse/cycle that is above a Bank counter only from above that Bank counter, and may disembark from such a horse/cycle only onto the Bank counter it is above *[EXC: they Bail Out directly INTO the hex, and each surviving cycle is placed in it as well (if that paddy is Irrigated, that cycle would be eliminated instead)]*. Likewise, Personnel mounting (or disembarking from) transport that is in a paddy may do so only from in (or must disembark INTO) that same hex.

EX: Unless Bailing out, Cavalry on a Bank counter can dismount only onto its bank counter, and expends the normal one MF to do so. Infantry in any type of paddy can mount a horse or cycle on a Bank counter in that hex only by first expending one MF to enter onto that Bank counter and then expending the normal one MF to mount. If Infantry on a Bank counter wish to mount transport in their In-Season paddy hex, they must expend 2 ¹/2 MF to do so (1 ¹/2 [enter INTO in-season paddy] + 1 [load] = 2 ¹/2).

8.212 ATTACKS: Infantry above a Bank counter are subject to Hazardous Movement (8.2111), and may use only Inherent FP/SW, LMG, LATW *[EXC: 20mm ATR]*, FT and/or Thrown DC. Each non-CC attack conducted by a unit above a Bank counter is treated as Area Fire *[EXC: Thrown DC]*, cumulative with other such penalties. A unit above a Bank counter receives a +2 drm to its Ambush dr, a +1 DRM to its CC attack (limit of +1 per attack), and a -1 DRM to each CC attack made against it. An unbroken Japanese Infantry unit above a Bank counter may detonate its DC as per 1.424, but vs its target(s, if any) beneath that Bank counter the attack is resolved as a Thrown DC.

8.2121 UNDERBELLY HITS: An AFV is subject to Underbelly Hits as it crosses an unbreached (8.8) bank hexside.

8.2122 MINES/RESIDUAL-FP: Mines/Residual-FP in a paddy hex attack in the normal manner regardless of whether or not their target is in the paddy.

8.213 SW/GUN: An unpossessed SW above a Bank counter is placed in that paddy (eliminating it if that paddy is Irrigated; 8.12) unless it is being Animal-Packed (10.1). A Gun above a Bank counter (note that this can occur only if it is being Animal-Packed) remains there if it becomes unpossessed.

8.22 AERIAL: All parachutes and gliders landing in paddy hexes land directly in them. A ⁵/8" parachute landing in an Irrigated paddy must immediately take a. Paratroops appearing onboard may not enter onto a Bank counter during that same APh. A glider landing in any paddy receives the +1 "hedge" Crash drm if it lands across a bank hexside.

8.3 TEM: A bank hexside is treated as a hedge for TEM purposes *[EXC: in addition to the effects of Indirect Fire, its +1 TEM is reduced to zero if the firer is at*

any elevation > the target's, if the target is above a Bank counter, and/or if the target unit is not Infantry (though Direct Fire vs an "empty" hex across a bank hexside would not itself negate bank-hexside TEM)]. A bank hexside cannot confer HD/Wall-Advantage status. The interior of a paddy hex is Open Ground (thus allowing FFMO/Interdiction) if its bank-hexside TEM is zero *[EXC: if in Season, its interior is grain; 8.13].* A Bank counter is Open Ground even if the paddies are In-Season. See also 8.5 and 8.7.

EX: See the 8.2108 illustration and assume the paddies are Drained. None of the squads shown can claim a bank-hexside TEM vs Indirect Fire. However, if squad A were an enemy unit and attacked squads B, C and D with other than a mortar/FT/Set-DC, squads C and D could claim the bank-hexside +1 TEM (and thus could not be subjected to MOG/Interdiction) but squad B could claim no positive TEM and would be considered in Open Ground. If squad were at > level 0, then even squads C and D would be considered in Open Ground vs its attacks. If the paddies were In-Season, regardless of squad A's elevation its attacks would treat squads C and D as being in grain but would still treat B as being in Open Ground. If squad D were to use its Inherent FP vs squad A, the latter could claim a bank-hexside TEM if it were not in a building. Squad C could claim a bank-hexside TEM vs squad B's Small Arms attack, but squad B could not claim it (and would be considered in Open Ground) vs such an attack by squad C. Vs a FB strafing hexrow oL, neither squad B nor squad C could claim bank-hexside TEM.

8.31 AFV/WRECK: A unit above a Bank counter cannot claim the TEM of an AFV/wreck in that hex.

8.4 LOS: Entrenched Infantry treat all bank hexsides as hedges for LOS purposes *[EXC: Wall Advantage rules are NA; 8.3].* Reciprocity applies. LOS to/from a unit on a Bank counter is drawn to/from that paddy hex's center dot. A Bank counter does not affect LOS to/from/through its hex. An AFV/wreck in a paddy retains its normal Hindrance effects. The Hindrance effect of an In-Season paddy differs from that of grain in that the normal +1 per-hex Hindrance is halved (FRD) and the grain is considered Inherent Terrain *[EXC: a Bank counter in that hex remains Open Ground (8.3); a Sighting TC vs a vehicle/Gun in an In-Season paddy never receives the +1 DRM for a target in grain].*

EX: see the 8.2108 illustration and assume the paddies are In-Season. Squad A's LOS to squad C incurs a +1 Hindrance (+2 [Hindrance effect of hexes oM4 and oL3] ?= +1), as does its LOS to oK2 (+3 [Hindrance effect of hexsides oL4-oM4 and oK3-oL2, and of hex oL3] ?= +1 ¹/2 FRD = l). Squad A's LOS to oJ1 incurs a +2 Hindrance (+4 [Hindrance effect of hexes oL4, oL8, oK3 and oK2] ?= +2), but its LOS to squads B and D is unhindered (+1 [Hindrance effect of hexside oL4-oM4 or oL4-oL5 respectively] ?= +¹/2 FRD = 0). The LOS from squad B to oJ1 (and vice-versa) receives a +1 a Hindrance (+2 [Hindrance effect of hexes oK2 and oK3] ?= +1). If squad D were entrenched it would have no LOS to the other squads.

8.5 MUD: Mud can exist in paddy hexes in two ways: they may be Irrigated (8.12), and/or EC may be Mud. Irrigated paddies are mud only in those hexes, unless EC are Mud. Whenever EC are Mud, all mud rules apply in (as well as IN) all paddy hexes even if they are In-Season (note that the extra MF/MP cost of mud is already included in the IN-hex COT of Irrigated paddies as given in 8.2). The extra MF/MP cost of mud applies to entry onto a Bank counter only if EC are Mud and the unit is changing hexes. Whenever mud is in effect for any reason in paddy hexes, its extra +1 TEM applies in the normal manner in and in those hexes, cumulative with all otherwise-applicable TEM.

EX: See the 8.2108 illustration, and assume the paddies are Drained and EC are Mud. Squad B begins its MPh by declaring Double Time and moving INTO oL3 at a cost of one MF (the extra ¹/2 MF for EC mud does not apply; 8.2108). Next it moves INTO oM3 at a cost of 2 ¹/2 MF (1 [cross bank hexside] + ¹/2 [EC mud] + 1 [enter INTO Drained paddy] = 2 ¹/2). It then enters onto a Bank counter in oM3 at a cost of one MP (again the extra ¹/2 MF for EC mud does not apply), and lastly it moves onto a Bank counter in oM2 at a cost of 1 ¹/2 MF (1 [enter onto Bank counter] + ¹/2 [EC mud] = 1 ¹/2). If squad B had instead begun its MPh by exiting the Bank counter directly INTO oM3 and from there moving directly onto a Bank counter in oM2, it would have expended 2 ¹/2 MF to enter each hex: (1 [cross bank hexside] + ¹/2 [EC mud] + 1 [enter INTO Drained paddy] = 2 ¹/2) for oM3; and (1 [cross bank hexside] + ¹/2 [EC mud] + 1 [enter onto Bank counter] = 2 ¹/2) for oM2. If squad B had never left the banks as it moved to oM3 and oM2, it would have expended 1 ¹/2 MF (1 [enter onto Bank counter] + ¹/2 [EC mud] = 1 ¹/2) in each hex.

EX: See the 8.2108 illustration, and assume that mud is in effect in the paddies because they-are-Irrigated/EC-are-Mud. If squads B and C are attacked by Indirect Fire HE, both squads will receive the +1 TEM for mud (but neither will receive bank-hexside TEM; 8.3). However, if squad A were an enemy unit and attacked them with Direct-Fire ordnance HE, squad B could claim only the +1 mud TEM while squad C's TEM would be +2 (+1 for mud and +1 for bank-hexside TEM). Note that if the paddies are Irrigated those HE attacks will also be halved on the IFT (8.12).

8.6 FIRES: No Terrain Fire can occur in a Drained/Irrigated paddy hex. In-season paddies are treated as grain for Fire purposes; however, Fire Spreading from one In-Season paddy to another does not qualify for the -2 "directly attached" DRM if their

common hexside is a bank hexside. Burning Wrecks occur in paddy hexes in the normal manner.

8.7 FORTIFICATIONS: Except as otherwise prohibited, all types of Fortifications may be set up in Drained/In-Season paddy hexes. No Fortification may be set up above a Bank counter, and none other than minefields/wire or Panji (9.) may be set up in Irrigated paddy hexes. Mines are considered to occupy both the interior and banks of a paddy hex (see also 8.2122). The use of a Bank Counter is NA in a paddy hex that contains any Wire or Panji counter. Each unit/SW/Gun above a Wire or Panji counter in a paddy hex is considered to be in that hex; however, Infantry above that Wire or Panji counter can claim neither bank-hexside TEM nor the paddy's non-Open Ground status, and are subject to all the provisions of 8.212 (only) just as if they were above a Bank counter *[EXC: Thrown DC use is NA];* these provisions apply together/cumulative with those for being above that Wire or Panji counter.

8.71 TRENCHES: Infantry ignore the Cost of crossing a bank hexside when entering one Trench counter directly from another. The provisions of movement/routing requirements apply unchanged in paddies. See also 8.4.

8.72 SHELLHOLES: Shellholes can occur in Drained/In-Season (only) paddy hexes, in which case the terrain characteristics in those hexes will change accordingly (the banks in those hexes would be unaffected).

EX: Shellholes in an In-Season paddy allow Infantry to enter both that hex's interior and the shellholes simultaneously, at a cost of two MF plus any cost to cross a bank. in addition, the grain in that paddy hex is considered non-existent for all purposes.

8.73 SUBTERRANEAN: No type of subterranean passage may exist in an Irrigated paddy hex.

8.8 BREACH: A Mobile dozer may breach a bank hexside of a Drained/In-Season (only) paddy, just as if it were breaching a bocage hexside *[EXC: it expends only ¹/4 (FRU)—not all—of its printed MP allotment to do so].* Thereafter, crossing that hexside is treated as open ground unless entering-onto/exiting-off a Bank counter. All unit types may enter INTO a Drained/In-Season paddy via a breached or non-bank hexside.

EX: See the 8.2108 illustration, and assume that the paddies are Drained and hexside oL2-oL3 is breached. Squad C may enter INTO oL3 by expending just the one MF for the IN-hex COT of that hex; i.e., it does not pay a MF to cross that bank hexside. However, if it instead wished to enter directly onto the oL3 Bank counter from in oL2, it would still have to expend the normal two-MF cost to do so (8.2101). The breach would have no effect on squad B's entry into/INTO oL2, since in all cases squad B would be entering-onto/exiting-off a Bank counter. If hexside oL4-oM5 were breached, squad A would expend one MF to enter directly INTO oL4. If hexsides oL4-oM5 and oL4-oK5 were breached, a truck Bypassing oM5 at vertex oM5-oL4-oM4 could enter directly INTO oL4, then INTO oK5, then INTO oJ4, at its normal Open Ground expenditure of four MP per hex (8.2).

9. PANJIS

(flip side)
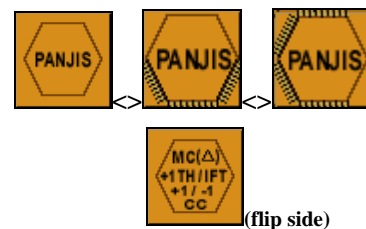
9.1 Panjis[20] Fortification counters that can be set up (to a maximum of one per hex) only prior to the start of a scenario that uses PTO Terrain. Panjis are listed in the scenario OB by the total number of Covered hexsides (9.3) allotted. The player may set up as many Panjis counters as he wishes, provided the total number of their Covered hexsides does not exceed the OB limit. Panjis may be set up in any non-subterranean terrain other than a building, rubble, marsh, swamp, paved road/runway, crag, water obstacle, a hex that contains wire, mines or a roadblock counter (whether onboard or hidden). Panjis may be set up in a bridge Location, but only the road hexsides of that Location may be Covered hexsides of that Panjis counter, and a unit above that Panjis counter cannot claim bridge TEM. Panjis cannot be set up at Crest level in a Depression; i.e., a Crest unit is not considered to be above a Panjis counter even though it may be placed physically upon it. Panjis cannot be moved, and do not affect stacking limits. A Panjis counter does not create a new Location in its hex; herein the term "Panjis Location" is used simply to refer to a Location that contains a Panjis counter.

9.11 HIP: Panjis counters may setup using HIP. When a Panjis counter loses HIP status, all of its Covered hexsides are revealed. See also 9.4.

9.12 UNIT SETUP: Neither a non-vehicular Gun, nor any unit not allowed to move from above to below a Panjis counter (9.5), may set up above a Panjis counter.

9.121 TRIP FLARES: A trip flare in a Panjis Location that contains no jungle/bamboo can be set off only by qualifying entry/Search across a Covered hexside of that Panjis counter or by a qualifying MF/MP expenditure made while the unit/stack enters/remains above that Panji counter.

9.13 DYO: The BPV of each Panjis counter equals two points per Covered hexside on that counter.

9.2 LOS & TEM: A Panjis counter is neither an obstacle nor a Hindrance to LOS. It has no TEM and does not alter the TEM of other terrain in its hex *[EXC: an AFV/wreck above a Panjis counter provides no TEM, and thus if in Open Ground does not change its hex to non-Open Ground]*.

9.21 ATTACKS: Infantry above a Panji counter may use only their Inherent FP, LMG, LATW *[EXC: 20mm ATR]*, and/or a FT, and may not be used to Interdict routing units. An Infantry/Cavalry unit above a Panji counter must add a +1 DRM to each attack (including CC) it makes or participates in (limit of +1 per attack), receives a +1 Ambush drm, and each CC attack vs it receives a -1 DRM. See also 9.52.

9.211 DC: Infantry above a Panji counter may not Place, Throw or Set a DC, nor may Infantry beneath a Panji counter Place a DC across a Covered hexside of that Panji counter. An unbroken Japanese Infantry unit above a Panji counter may detonate its DC as per 1.424, but vs its target(s), (if any), beneath that Panji counter the attack is resolved as a Thrown DC. A DC Placed into a Panjis Location across one of that Panji counter's Covered hexsides attacks its target(s), (if any) beneath that Panji counter as if it were a Thrown DC. See also 9.72.

9.3 COVERED HEXSIDE: Each Panjis counter creates one to six Covered hexsides in its hex. The Covered hexsides of Panjis counters are indicated in the same way that HD counters indicate HD hexsides. Covered hexsides can cause Infantry to take Panjis MC (9.31) and can eliminate/immobilize other types of units as well.
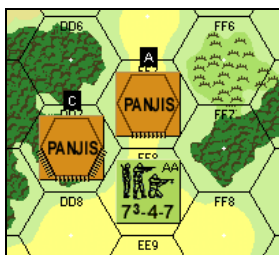
EX: Hexsides 37DD7-CC8, DD7-DD8 and DD7-EE8 are all Covered hexsides of Panji counter C. Only hexside EE7-EE8 is a Covered hexside of Panji counter A.

9.31 PANJI MC: A Panjis MC is a NMC (Δ); however, Battle Hardening does not apply. *Moreover, if playing under GIA rules, a Panji MC DR is any Original Doubles other than 12, the Infantry unit taking it also suffers Casualty Reduction, even if it does not break; an Original 12 DR also causes a Casualty MC (Fate).* in all cases, if the Infantry unit fails the Panjis MC it first suffers Replacement (if applicable, ELR, etc), then undergoes Casualty Reduction (or the Casualty MC) as/if applicable, then suffers the Panjis MC break result. A Final DR equal to the unit's current morale pins the unit unless it is immune to pin results.

9.4 ENTRY: A Panjis counter does not alter the MF/MP entry cost of its Location, except as it prohibits both Bypass (in certain cases; 9.46) and the use of a Bank counter (8.7). A non-Dummy (determined as per 25.4, 106.61) ground unit/stack that enters a Panjis Location is placed above that Panjis counter if the hexside it enters across (i.e., the hexside common to both the hex being entered and the one being exited) is a Covered hexside of that Panjis counter *[EXC: if entering within a trench or subterranean passage; 9.45]*. For entry across one of its non-Covered hexsides see 9.45-.46. A unit entering onto a Panji counter can lose its concealment (9.53) and cannot use road bonus (9.54). If a hidden Panji counter's Location is entered across one of its Covered hexsides by a unit of the side that owns the Panjis counter, 9.41-.44 apply unchanged but the Panjis counter is revealed only if a Good Order enemy ground unit has the applicable necessary LOS to it.

EX: See the 9.3 illustration. Squad A must expend two MF to enter EE7 (or would expend three MF if hexside EE8-EE7 contained a wall or hedge), and is placed above Panji counter regardless of phase.

9.41 INFANTRY: Each Infantry unit that enters a Panjis Location across one of that Panjis counter's Covered hexsides must immediately take a Panjis MC (before any Defensive Fire, Interdiction, or minefield attacks are conducted vs it) unless it is using Non-Assault Movement [GIA] (or Armored Assault [HL]), is making a normal advance (i.e., not vs Difficult Terrain), is forced back out of that Location (as per 25.4, 106.61), is required to take a Pin TC (PTC) as per 9.43, or is entering while in a trench or subterranean passage (9.45). After fully resolving all resulting Panji MC (if any), Defensive Fire/Interdiction is conducted vs the unit/stack in the normal manner. After that, if it is still able and otherwise allowed to, it may *[EXC: during the APh]*

expend an extra MF and thereby be placed under the Panjis counter; see 9.5. A broken unit need not rout across a Covered hexside if doing so would put it above that Panji counter, provided it has an alternate legal rout path.

9.411 MANHANDLING: 9.41 applies to an Infantry unit that Manhandles a Gun/motorcycle/boat into a Panjis Location across one of that Panjis counter's Covered hexsides. However, the item being Manhandled is immediately (as per 9.41) eliminated upon entering unless the unit is forced back out of that Location (as per 25.4, 106.61).

9.42 VEHICLE: A vehicle (including Wagon) that enters a Panjis Location across one of that Panjis counter's Covered hexsides is immediately (as per 9.41) immobilized unless it is a fully tracked AFV/dozer *[EXC: a Ridden motorcycle entering thusly is immediately eliminated, and its Rider(s) must Bail Out; 9.423 then applies]*. If the fully-tracked AFV/dozer is still Mobile after all Defensive Fire vs it has been resolved, it may expend an extra MP to move beneath the Panjis counter (9.5), or may Stop/fire, etc., in the normal manner *[EXC: VCA change is NA; 9.52]*.

9.421 TOWING: A Gun being towed is eliminated when Panjis immobilizes its towing vehicle.

9.422 HORSE/BICYCLE: A horse/bicycle that is ridden into a Panjis Location across one of that Panjis counter's Covered hexsides is immediately (as per 9.41) eliminated *[EXC: such a horse that expended eleven MF (inclusive of that Location's COT) to enter is not eliminated, unless it is Galloping/Charging]*. If it is eliminated, its Rider(s) must Bail Out and 9.423 then applies. Horses being "led" by their owning unit, and bicycles being portaged (1 PP), are not directly affected. Cavalry may Gallop/Charge neither onto nor off of a non-hidden Panjis counter.

9.423 PRC: PRC disembarking (in any fashion) from transport that is above a Panjis counter do so onto the Panji counter. After resolving their Bailing Out NMC (if any), they are then treated as entering Infantry (9.41) even if they disembarked as a stack.

9.43 STACK: Should a non-Aerial stack that moves/advances across a road/path/Depression/TB hexside be required to take a Panjis MC therein, the ATTACKER randomly selects one non-prisoner unit in that stack to take it. After fully resolving all resulting Panjis MC (but prior to Defensive Fire if it is the MPh), all other units in that stack not exempt from PTC must take a normal PTC (leadership can modify). *[EXC to all: If the stack is berserk or conducting a Human-Wave/Banzai-Charge, 9.41—not 9.43—applies.]* 9.41 also apply to a routing stack.

9.44 COLUMN: Should a non-Dummy Column unit that enters a hidden-Panjis Location be required to take a Panjis MC therein, that Column automatically Disbands after all Defensive Fire ensuing from that Impulse has been resolved. The same would apply if the Panjis were not hidden, except in this case the Column could opt to Disband, in which case it would automatically Disband.

9.45 NON-COVERED HEXSIDE: A ground unit's non-Bypass entry into a Panjis Location is not affected by that Panjis counter if the unit is crossing one of that Panjis counter's non-Covered hexsides, or is crossing one of its Covered hexsides while using a trench or subterranean passage. Each unit entering thusly is placed directly beneath the Panjis counter.

9.46 BYPASS: Bypassing in a Panjis Location is NA along a hexside that is/touches a Covered hexside of that Panjis counter. When a unit attempts such entry (e.g., if the Panjis counter is hidden), it must still expend whatever MF/MP such Bypass would have cost if there were no Panjis counter in that hex but does so in its current position. Bypass blocked in this manner does not itself end the unit's MPh. A hidden Panjis counter that block a Bypass move must be revealed immediately. Unless otherwise prohibited, Bypass in a Panjis Location is allowed along a hexside that neither is, nor touches a Covered hexside of that Panjis counter; and each unit thusly entering is placed directly beneath the Panjis counter.

9.47 AERIAL: After a [5]/8" parachute has landed in a Panjis Location and its Landing MC/TC (if any) has been resolved, its owner must make one dr (Δ) for it (or one for each panji Location that contains its Personnel revealed by "downwind scatter". There is a +1 drm if the landing unit is broken, and a +drm equal to half (FRU) the number of Covered hexsides on that Panjis counter. (If hidden, the Panjis counter must be revealed at this time.) These drm are applied individually to each Personnel unit revealed by "downwind scatter". If the Final dr is 6, the parachute (or each Personnel Unit to which that Final result applies) is placed beneath the Panjis counter; otherwise it is placed above the Panjis counter and must immediately take a Panjis MC (just one such MC for all revealed units in the hex) using a Morale Level of 7. A parachute landing in a panji Location follows the same procedure to determine its placement therein, but automatically receives both +drm. A glider landing in a panji Location receives a +1 drm to its Crash dr if it lands across (as determined by its venue of Approach) a Covered hexside of that Panjis counter. If it survives it is placed beneath the Panjis counter, and its occupants will disembark beneath the Panjis counter as per 9.51.

9.48 SEARCHING: Searching an adjacent Panjis Location can cause casualties (as per 25.4, 106.61) if a Covered hexside is common to that Location and the Searcher's

Location. A hidden Panjis counter is revealed when its Location is Searched. A unit above a Panjis counter may not Search.

9.5 ABOVE/BENEATH: Only Mobile full-tracked AFV/dozers, Infantry *[EXC: if Manhandling]*, horses being "led" by their owners, and Cavalry may change position from beneath a Panjis counter to above it or vice-versa. The cost to do so is one MF/MP (even if using Reverse movement), expended separately from other MF/MP costs[21]. No Panjis MC or other Panjis-caused penalty ensues from this action, which is carried out after resolving all Defensive-Fire/Interdiction allowed by the unit's previous MF/MP expenditure. Infantry may not advance/Withdraw-from-CC off of a Panjis counter. An ATTACKER unit entering a Panjis Location to conduct any type of OVR may make that attack before or after thusly changing position in that hex. See the 9.6 example.

9.51 PRC: An Infantry unit in a Panjis Location can become PRC only if both it and its transport are either above or beneath that Panji counter, but the Panjis will not otherwise affect that action. PRC on transport that is beneath a Panjis counter disembark to beneath it. See also 9.423.

9.52 SW/GUN/VEHICLE: An item that becomes unpossessed while above a Panjis counter is left above it. Infantry above a Panjis counter may not Recover, Transfer, (un)dismantle, repair or voluntarily malfunction/disable a SW/Gun. A vehicle above a Panjis counter may not change its VCA and cannot be Scrounged. A non-vehicular Gun above a Panjis counter cannot be fired, Pushed, (un)hooked, (un)limbered, (un)loaded (unless currently dismantled), or (Un)Packed (10.3)—nor may it be (un)dismantled, repaired or voluntarily malfunctioned/disabled unless in a vehicle.

9.53 CONCEALMENT: Each unit above a Panjis counter is considered to be continuously engaging in a concealment-loss activity, and may not acquire concealment if in the LOS of an unbroken enemy ground unit.

9.54 ROAD BONUS: An Infantry unit/stack cannot claim road bonus during a MPh in which it crosses any Covered hexside. For this purpose assume road bonus to be the last MF the unit/stack can expend in its MPh.

9.55 FORTIFICATIONS: All other Fortifications (and tunnel entrances/exits) in a Panjis Location are considered to be beneath that Panjis counter, and can be entered only from (or exited only to) beneath that Panjis counter *[EXC: entering/exiting the hex via a trench; entering the hex via a subterranean passage]*. Infantry above a Panjis counter may not make/direct an Entrenching Attempt. See also 9.45 and 9.71.

9.56 PRISONERS: Infantry above a Panjis counter may not Guard an Unarmed unit that lies beneath that Panjis counter (or vice-versa).

9.6 EXIT: A unit above a Panjis counter may not directly exit that hex. It must first move/rout beneath that Panjis counter as per 9.5, and then it may exit as if no Panji counter were present therein *[EXC: only Mobile full-tracked AFV/dozers, Infantry not Manhandling, horses being "led", and Cavalry may thusly exit across one of that Panji counter's Covered hexsides, expending one MF/MP to cross it unless using a trench or subterranean passage]*. See also 9.54.

9.7 REMOVAL: Panjis removal does not itself adversely affect a unit above that Panjis Counter. If the Panjis counter is completely eliminated, that Unit is simply no longer above a Panji counter. Aside from Falling Rubble/Terrain-Blaze, Panjis can be removed only in the following ways:

9.71 CLEARANCE: A (predesignated) Covered hexside is changed to a non-Covered hexside upon a successful Clearance DR, using the same principles and procedures as given for Clearing wire. No unit above a Panji counter may attempt, direct or assist in Clearance (including path creation; 2.7).

9.711 Each squad in a Panjis hex may elect to attempt to clear the Panjis away from ONE hexside by rolling *equal to or less than* its firepower factor with two dice during the Prep Fire Phase. Each squad must roll separately, but if successful the Panjis along that hex*side* is immediately removed.

9.712 A leader in the Panjis hex may add his leadership modifier to one squad's *clearance* die roll.

9.713 All units engaging in Panjis clearing attempts may neither move or fire during that *player* turn regardless of the success or failure of the wire clearing attempt. Place a TI counter on top of any unit making a clearance DR.

9.714 A Demolition Charge can double as a Bangalore torpedo and thus be used to clear a Panjis hexside. The hexside being "cleared" by a DC is across the hexside from which the charge was placed. All procedures of Demolition Charge placement *(23)* apply and a KIA result successfully "clears" the Panjis hexside during the Advancing Fire Phase.

9.715 Artillery bombardment is generally ineffective against most fortifications such as wire and Panjis but occasionally a heavy shelling cleared such obstacles. Panjis hexsides can be removed from the target hex with a KIA result during artillery bombardments of 80mm or more. The number of Panjis Hexsides cleared is determined by the number of KIA results ABOVE the final KIA result itself. (EX: A 150mm OBA Bombardment results in a DR of 4 on the 30 Col. on the IFT, which results in a KIA. Three hexsides are cleared since there is three KIA results total

reaching down to the DR of 4). If there are more Covered Panjis hexsides than the number of KIA results, randomly select which hexside(s) as being cleared by rolling 1 die for each Covered hexside of a Panjis location. Highest die roll results in that hexside (or hexsides in the case of ties) as being cleared.

9.72 HE/DC: During any HE attacks vs a Panjis Location of 100mm or more which results in a KIA, roll again, if the second attack again results in a KIA, that Panjis counter is removed and replaced by a shellhole (Entrenchment) counter in the Panjis Location.

9.73 AFV/DOZER: During its MPh, a fully tracked AFV/dozer beneath a Panji counter may change a Covered hexside (of that Panjis counter) within its VCA to a non-Covered hexside, provided it is using neither Reverse movement nor VBM. Its owner must first declare which hexside it will "clear"; it must then expend 1/4 (FRU) of its printed MP allotment to do so while within the Panjis Location, and then takes any Bog Check required if in a Bog hex. If it remains Mobile after all Defensive Fire and Bog DR vs it, that hexside is thusly changed. It may then repeat this procedure if otherwise able to.

9.731 BREACH: A Covered paddy hexside breached by a dozer becomes a non-Covered hexside; see 8.8.

10. ANIMAL-PACK
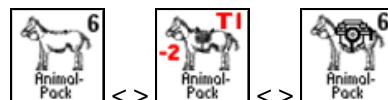
[Note: The term "Gun" when used herein includes a dmMTR ≤ 82mm or a SW (see 10.7).]

10.1 Animal-Pack: These rules will allow certain type of Guns (listed in 10.2 and 10.61) and SW's (see 10.7) to be carried (not towed) by Horse counters that have been specially designated as having that capability. A Gun capable of being thusly carried is termed a Pack Gun. A Horse counter designated by a scenario (or by DYO purchase; 10.6) as being capable of carrying a Pack Gun is termed a *Mule*. A Pack Gun being carried by a Mule (i.e., one on such a Horse counter) is referred to as an Animal-Packed Gun or as being Animal-Packed; conversely, a Mule carrying a Pack Gun is said to be Animal-Packing it. The overall process of removing a Pack Gun from its Mule and setting it up on the ground is termed "Unpacking"; and the reverse of this process is called "Packing". A Pack Gun may be Animal-Packed/Unpacked any number of times during play, depending on the status of its crew. A Mule is treated as a Horse counter for all purposes except as stated otherwise. A Mule may never carry a Rider (not even that Gun's crew), be voluntarily "deployed" into two "HS" Mules, nor create any type of horse/SMC-Mule. Any scenario, which includes Horses, players may elect to have some designated as "Mules". in any scenario that does not include Horses, players may opt to begin a scenario with dmGuns or dmSW's, which must ENTER from offboard, as being packed on Mules. However, the same total amount of BPV for Mules is awarded to their opponent to purchase additional SW's or MMC's for his side.

10.11 PACK-TI: Except as stated otherwise, being marked with an Animal-Pack counter is equivalent to being **TI** and is referred to as being "Pack-TI". Animal-Pack counters are not removed at the end of the CCPh. The only Personnel unit that may become Pack-TI is a non-PRC, Good Order *crew* counter of the same nationality as the Pack Gun it possesses. Such a crew may become Pack-TI only during RPh at the start of any friendly Player Turn. A Pack-TI crew may conduct any type of activity that is normally prohibited by TI status, but if it does — or if it loses its Good Order status (or pinned [GIA]) — it immediately loses its Pack-TI status (remove the Animal-Pack counter) unless stated otherwise (e.g., see 10.31-.33). A crew is subject to Hazardous Movement penalties same as TI while in Pack-TI status, regardless of phase. Each attack conducted by a Pack-TI crew is modified as Area Fire *[EXC: TI DRM apply in CC]*. A Pack-TI Pack-Gun/Mule may not be fired, Pushed, moved or advanced. Once Pack-TI, neither a Pack Gun nor a Mule can lose that status until it has completed an Packing/Unpacking Period (10.3).

10.2 ANIMAL-PACKING: Any MTR capable of being dismantled, as well as any other Gun allowed by an Ordnance Note (see also 10.61), may be Animal-Packed; however, the Gun must be dm/limbered prior to being packed/unpacked. Only a Mule counter may Animal-Pack a Gun, and may Animal-Pack only one such Gun at a time. The Gun being Animal-Packed is placed on top of the Mule; while on the Mule it may never be fired, Pushed, hooked up, unlimbered or assembled, and is considered to be possessed by the crew "accompanying" that Mule *[EXC: in a panji Location the crew is "accompanying" the Mule only if both of those units are above or beneath that Panji counter]*. A Gun being Animal-Packed is not considered a portaged SW for MF purposes, nor is it eliminated if its un-"accompanied" Mule is in terrain that calls for the elimination of unpossessed equipment *[EXC: if unloaded therein; 10.31]*. A non-Mule horse may not Animal-Pack a Gun of any type, nor may a Mule Animal-Pack a non-Pack Gun.

10.21 STACKING: A crew possessing an Animal-Packed Gun is considered the equivalent of a squad for stacking purposes.

10.3 PACKING/UNPACKING: To Pack/Unpack a Gun onto/from its Mule, the crew and the Mule must all occupy the same terrain while in the same Location (e.g., all of them must be beneath any Panji counter in their Location, (an entrenched crew cannot Pack/Unpack a Gun because the Mule cannot occupy the entrenchment). An Animal-Pack counter is placed above the Gun, Mule and crew during the initial RPh of a friendly Player Turn. All must then remain Pack-TI for one complete *Game Turn* called the Packing/Unpacking Period. For Animal-Pack purposes, a complete Game Turn runs from (and includes) the start of the first friendly RPh of that Players Game Turn through to the end of the next RPh of the next friendly Players Game Turn. If the crew for any reason loses its Pack-TI status prior to the end of the Packing/Unpacking Period, the Game Turn in which this occurs no longer counts toward the time needed to complete the Packing/Unpacking Period. When the Gun, Mule and crew have remained Pack-TI for the required Game Turn, the Packing/Unpacking Period has been completed; the Animal-Pack counter is then removed at the end of the RPh, and normal capabilities return to all involved. in a night scenario the Packing/Unpacking Period is always twice its normal length.

10.31 If a Pack Gun is unloaded into a fordable Water Obstacle, non-dry stream, Irrigated paddy, marsh, swamp or onto a Bank counter the Gun is eliminated.

10.32 dm/LlMBERED: If otherwise allowed, a Pack-TI Gun may be repaired/[un]dismantled/[un]limbered in the normal manner, but only by a Pack-TI crew and only if the Gun is not currently loaded on a Mule. Such actions cause no loss of Pack-TI status, nor does the subsequent loss of that TI status negate any of those actions.

10.33 If a player Unpacking a Gun decides to Pack it back onto the Mule (or vice-versa) while all involved are Pack-TI, he states this intention in the RPh during the initial RPh of a Game Turn. The new Packing/Unpacking Period then begins, and lasts a complete Game Turn (as defined in 10.3) equal to the net number already spent Packing/Unpacking the Gun, but otherwise the same procedures are followed and cause no loss of Pack-TI status. *[EXC: If the Gun was unloaded from its Mule involuntarily (i.e., via a 10.4 dr), the new Packing Period would be determined as per 10.3.]*

10.4 VULNERABILITY: Whenever a Mule is eliminated or Casualty-Reduced while Animal-Packing a Gun and/or Pack-TI, the *attacker* makes a subsequent dr on the following table to find the effect on the Gun:

ANIMAL-PACK GUN VULNERABILITY TABLE	
Final dr	**Result (only Low Ammo can apply if Gun is not loaded on Mule)**
≤ 2	Gun is eliminated (or, if already unloaded, is marked with Low Ammo counter
3	Unload Gun in its Malfunctioned state and mark with Low Ammo counter. *
4	Unload Gun and mark with Low Ammo counter. *
5	Unload Gun in its Malfunctioned state. *
6	Unload Gun. *

* Determine Gun's CA randomly. Gun and Mule (but not the crew) also become (or remain, along with the crew) Pack-TI [EXC: if Gun is unloaded into prohibited terrain (see 10.31), it is eliminated and Pack-TI status is NA].

-1 drm - If the attack eliminated the Mule.

10.41 All applicable results of the dr occur immediately, with no other penalty. If Low Ammo occurs, mark the Gun with a Low Ammo counter (which changes its current B# to an X# and creates a new B# one < that new X#). If a Pack-TI Mule is eliminated/Casualty-Reduced after its Pack-TI Gun has been unloaded, the dr is still made; however, all dr results other than the occurrence of Low Ammo are ignored. The effects of each Low Ammo occurrence (including SSR-designated Ammunition Shortage) vs the same Animal-Packed/Pack-TI Gun are cumulative (place extra Low Ammo counters on it as called for). A Gun that survives a dr on this table must still go through a complete 10.3 Packing/Unpacking Period (no Mule is required if it was eliminated) before it can lose its Pack-TI status.

10.42 (Guns as Targets) does not apply to a Gun being Animal-Packed, but does once the Gun has been unloaded. Any gun shield on a Pack Gun is considered non-existent while the Gun is Pack-TI/being Animal-Packed.

10.5 COLUMN: A Mule may be part of a Column.

10.6 DYO: A Horse/Gun purchased for Animal-Pack purposes retains its normal BPV. in the Purchase Roster entry for the Horse, write down "Mule" and record its ID letter.

10.61 GUNS: in addition to the Guns mentioned in 10.2, the German *MTR and *INF, the Russian *MTR and 76* INF, and the U.S. 75 ART, *INF, *MTR may be used as Pack Guns by their respective nationalities.

10.7 SW: SW of all MMG, HMG, light mortars and 37mm INF types may be Animal-Packed, but must be dm if possible. For Animal-Pack rules purposes only, consider each such SW as equivalent to a Gun. Animal-Pack rules apply in the normal manner, with the following differences. The SW may be Packed/Unpacked by any MMC that could operate it with neither Captured- nor Non-Qualified-Use penalties. A SW voluntarily unloaded into prohibited terrain (10.31) is not eliminated if its presence would otherwise be allowed there; if involuntarily unloaded (as per 10.4) into such terrain, it is eliminated as if unpossessed *[EXC: if on a Bank counter; 10.31]*.

11. CAVES

11.1 Cave Counters are Fortifications that are available only to the Japanese. [22] They may be set up only prior to the start of the scenario, with a theoretical maximum of six per hex (i.e., one per hexside, as determined by their CA; 11.12). Each Cave counter represents a separate subterranean Location (referred to hereafter as a cave), with its own aboveground entrance, in its hex. Caves have a Rally-Bonus and are considered as Concealment Terrain *[EXC: see 11.33]*. For cave setup purposes see also 11.91. A Cave counter may be set up either in a Depression (including a Sunken Road *{GIA 151}* or a Hill Depression *{HL/NA 188.121}*), or in a non-Depression (including an Elevated Road; *{GIA 156}*) hex that shares a hill/cliff Crest Line hexside with another hex whose Base Level is lower than the Base Level of the Cave counter's hex; however, no Cave counter may be set up in a building, rubble, marsh, swamp or Water Obstacle hex or in a non-dry stream. Each Cave counter set up in a non-Depression hex must have its arrow pointing across a hill/cliff Crest Line hexside (of its hex) to the center dot of an adjacent lower-Base-Level hex that contains no Irrigated-paddy/sand/marsh/swamp/water (even a hexside pond) whose level is that cave's level (11.11). Each Cave counter set up in a Depression must have its arrow pointing directly away from a non-Depression hexside (of its hex) whose other common hex has a Base Level (or Crest level - whichever is higher) > that cave's level, and that arrow must also point across a Depression (including a Crest-Line-Depression; *{see COI 80 Gullies}*) hexside to an adjacent Depression hex. *[EX: A unit in 24D9 can be seen from all level -1 hexes in hex row D, and also from C10, E4, E5, E6, F4, F5, and the Crest Status level of E7 (along Crest hexside E7-F7). A unit in E7 cannot have a LOS into D9 due to the cliff hexside in E7 (11.21). A unit in E8 cannot see INTO D9 because its LOS crosses the vertex of the D8-D9 Crest Line-Depression hexside - as does the LOS from C8.]* in all cases, the hexside a Cave counter's arrow points to is called its CA Hexside. No two caves in the same hex may have the same CA Hexside. If a cave is set up in a non-Depression hex, the other hex common to its CA Hexside is termed its Entrance Hex. If a cave is set up in a Depression, its own hex is its Entrance Hex. Only Infantry/SW/a-non-vehicular-Gun may be set up in a cave. The non-hidden contents of a cave are placed onboard beneath that Cave counter, while all aboveground contents of the hex are placed (and considered to be) above all Cave counters in that hex.

11.11 LEVEL: The cave's elevation level is determined as follows. If the Cave counter is set up:

11.111 in a Depression, the cave's level equals the Base Level of its Entrance Hex;

11.112 in a non-Depression hex and its CA Hexside is a non-cliff hexside or a one-level cliff, the cave's level equals the Base Level (or Crest level—whichever is higher) of its Entrance Hex;

11.113 in a non-Depression hex and its CA Hexside is a cliff hexside two levels high, the cave's level is chosen by the Cave counter's owner but must be the Base Level (or Crest level—whichever is higher) of its Entrance Hex and < the Base Level of the Cave counter's hex. A cave set up in this manner should use the side of a Cave counter with "L0", "L1", "L2" or "L3" on it to indicate the cave's actual level (see the 11.6 illustration). If a cave's level is > the Base Level (or Crest Level - whichever is higher) of its Entrance Hex, that cave is termed an Upper-Cliff cave.

11.12 COVERED ARC: The arrow on each Cave counter indicates the direction of its CA, which differs significantly from a normal (*SQL 29.4*) CA in that it comprises the cave's Entrance Hex plus the area between (and including) an extension of the two hexspines of that Cave counter's hex that touch the vertices of its CA Hexside. *[The arrow points to a single HEXSIDE with the two adjoining hexsides to the left and right as forming the CA of the Cave Entrance]* The CA of a Cave counter excludes all (even Aerial) Locations in that Cave counter's hex, other than that of the cave itself *[EXC: the CA of a Cave counter in a Depression includes the area in its hex]*. A target hex half in and half out of a cave's CA is considered to be completely within that CA *[in most cases a firer that must fire within a given CA must have the hex containing the target completely within its CA - merely having the vertex (or hexside) aiming point forming a part of the boundary of its CA is normally insufficient, but in this case it is allowed.]*, even though part of that hex actually is outside that CA. A Cave counter can never have its CA changed during play, and must have it recorded

when set up using HIP. For the CA of a Gun in a cave, see 11.92.

11.2 CAVE COMPLEXES: Cave Complexes are Fortifications that are available only to the Japanese. Up to 25% (FRD) of the original number (see 11.91) of Cave counters in the Japanese OB may be considered Primary Cave counters. Each Primary Cave counter has an associated Cave Complex that abstractly represents a series of underground passageways extending from the cave's Location, thus enabling Japanese Infantry to move unseen from one point to another. Each Cave Complex comprises the hex that contains its Primary Cave counter plus any/all other hexes within two hexes of that counter *[EXC: no hex containing any Irrigated-paddy/sand/marsh/swamp/Water-Obstacle (including a hexside pond)/non-dry-stream may ever be a Cave Complex hex, nor may a Cave Complex extend past any such hex(es) (or past any sunken/elevated road hex(es)) so as to isolate any hex(es) of that Complex from the rest of its hexes; Cave Complexes may not overlap (i.e., each hex that would be inside the boundaries of two Cave Complexes must be assigned {on the CCSS; 11.32} to just one of them)].* No Primary Cave counter may be set up in an elevated road hex. Each Cave Complex is both Rally-Bonus and Concealment Terrain, and is considered one multi-hex, subterranean Location separate from all other Locations (even pillbox/cave Locations set up within its boundaries). Only Infantry/SW/non-vehicular-Gun(s) may be set up in a Cave Complex.

11.3 HIP: Cave counters, as well as their contents, are always considered to be in Concealment Terrain regardless of the other terrain in their hex and always set up hidden. Cave Complexes and their contents always set up hidden. HIP for caves, Cave Complexes, and their contents is in addition to all other HIP allowed to the Japanese side. Normal rules for HIP and HIP-loss apply to Cave counters (*SQL 42*) and their contents except as stated otherwise (see 11.31 and 11.75). A Cave counter set up in a jungle, kunai or bamboo hex is considered to occupy that terrain type for the purposes of a Fortification, provided its CA Hexside is not also a cliff hexside. When a Cave counter is revealed it is placed onboard, but its hidden contents are not unless their "?"-Loss action revealed that Cave counter *[EXC: Searching; 11.33].*

11.31 HIDDEN ACTIONS: Currently hidden Infantry (and their SW/Gun/prisoner[s]), even if not originally set up using HIP and even if not in Good Order, that conduct a "?"-Loss activity to-enter/while-in a cave or Cave Complex remain hidden if no Good Order enemy ground unit within 16 hexes currently has a LOS to them. If they remain hidden, that activity is indicated in their Cloaking Box (see 11.32) in the proper manner but need not be announced to the opponent[23].

11.32 CAVE-COMPLEX SETUP SHEET (CCSS): The hidden setup of caves, Cave Complexes, and their contents is recorded on the CCSS by their owner, using these symbols. Each hidden Cave counter (and its contents) is set up in the Cloaking Box whose ID letter corresponds to that of the Cave counter. The contents of each Cave Complex are set up in the Cloaking Box whose two-letter ID corresponds to the single-letter ID of that Complex's Primary Cave counter. Each cave's ID letter is recorded in the proper hex on the CCSS to show its hidden onboard position.

11.321 Other hidden Fortifications may be recorded on the CCSS, as may units and weapons using normal HIP. Additional symbols for these are shown on this link.

11.33 SEARCH & RECON: A Search successfully conducted vs a hidden Cave counter's hex—even by a unit not in the cave's CA—reveals all Cave counters in that hex and their contents. A Recon conducted vs a hidden Cave counter's hex reveals all Cave counters in that hex but not their contents (11.3). Search/Recon cannot be used vs a Cave-Complex/its-contents. A cave does not invoke the +2 Search drm; i.e., it is not considered Concealment Terrain vs a Search.

11.4 STACKING: Each cave has a stacking capacity of one squad-equivalent (Overstacking can still occur), separate from (i.e., in addition to) normal hex stacking limits. This is indicated on each Cave counter by the left-hand numeral in its Strength Factor. For Guns in caves see also 11.92. The stacking limits of a Cave Complex equal twice the number of Cave counters originally set up within its boundaries. Overstacking can occur in a Cave Complex *[EXC: NA during setup],* but no unbroken unit/stack may enter an already-Over stacked Complex if its entry would increase the squad equivalency therein. All units and equipment in the same Cave Complex are assumed to be stacked together. Note that Infantry in the cave(s)/tunnel(s)/pillbox(es) within the boundaries of a Cave Complex are not part of that Complex and so do not count towards its stacking limits.

11.5 LOS: LOS to/from a cave is traced to/from the cave hex's center dot and the cave's level, but can exist only if traced entirely within that cave's CA (exclusive of its CA Hexside vertices only if the cave is in a Depression; see Hillside Depressions). Hence no LOS exists between different caves neither in the same hex, nor between the Aerial and cave Location(s) of the same hex, nor between a cave and the aboveground Base-Level Location of its non-Depression hex. Barring other LOS obstructions, LOS may be traced within the CA of a cave in a non-Depression hex to/from an elevation lower than the cave's if its Entrance Hex contains no terrain (including a Crest Line) whose obstacle height along that LOS is > that cave's level. No LOS ever exists to/from a Cave Complex, but always exists between units in the same Complex. If a cave's CA Hexside is also a cliff hexside, no LOS exists between that cave and a Climbing unit at a vertex of that CA Hexside and at a different level than that cave.

11.51 CONTINUOUS SLOPE: If the LOS from a unit in a cave whose CA Hexside is also a hill (only) Crest Line hexside lies along a Continuous Slope when disregarding the Cave counter's hex, then a Continuous Slope is considered to exist from that cave along that LOS.

11.52 RIGHT OF INSPECTION: An opponent may not inspect the contents of a cave/Cave-Complex, but he can demand verification of an action taken by a unit in a cave (only).

11.6 ADJACENT/ACCESSIBLE: Each cave is Accessible to all other caves that lie in the same hex with it and within one level of it. Each cave is also Accessible to the Cave Complex (if any) whose boundaries it is set up within. Each Cave Complex is Accessible to each cave set up within its boundaries, to each other Complex it touches (i.e., shares one common hexside with), and to each other Location connected to it by a tunnel (11.933) *[EXC: despite being defined as Accessible, a Cave Complex cannot be entered during the APh from another Cave Complex that touches it; 11.73].* A unit is ADJACENT to a cave if Japanese Infantry in that unit's Location would have a LOS to that cave and could advance directly into it.

11.7 CAVE ENTRY: A cave may be entered from aboveground only from its Entrance Hex, and from belowground only from an Accessible (11.6) cave/Cave-Complex. Only Japanese Infantry (and their SW/Manhandled Gun/Guarded-prisoner[s]) may enter a cave *[EXC: a Gun may enter a cave only from an Accessible Cave Complex; 11.76],* and their normal cost to do so is two MF *[EXC: see 11.751].* Entry of an Upper-Cliff cave (11.113) from aboveground requires Climbing (*GIA 162.4*).

11.71 SAME-HEX ENTRY: Entry of a cave from an Accessible (11.6) cave in the same non-Depression hex costs one additional MF per level change *[EXC: see 11.751].* Entry of a cave in a Depression is possible from above-ground only from in that Cave counter's hex. Infantry in a cave in a Depression who wish to enter another cave in that same hex must first exit to above-ground in that hex (see 11.72), and then make a separate MF expenditure to enter the other cave *[EXC: see 11.751].* They may do this even during the APh if otherwise allowed.

11.72 CAVE EXIT: Infantry in a cave in a non-Depression hex exit directly to aboveground by crossing that cave's CA Hexside to its Entrance Hex; normal hex-entry principles and MF costs apply *[EXC: an Upper-Cliff cave may be thusly exited only by Climbing].* Exiting directly to aboveground from a cave in a Depression leaves the Infantry in that same (i.e., in that cave's Entrance) hex; the normal cost to enter INTO that aboveground Location is one MF (like exiting a pillbox). For exiting a cave into a Cave Complex see 11.73.

11.73 CAVE COMPLEX: A Cave Complex may be entered only from an Accessible (11.6) cave/Cave-Complex/tunnel (11.933), but such entry costs no MF (11.751). Infantry may not rout from a Cave Complex, nor may they advance from one Complex to another.

11.74 RESTRICTIONS: The Inherent MF allotment of every Infantry unit (even if wounded/berserk/Conscript/SMC) is four MF, and no Double-Time/leader MF bonus can apply, during a MPh or APh in which it enters a cave or Cave Complex. However, regardless of phase, an Infantry unit may enter a cave or Cave Complex from an Accessible cave/Cave-Complex only if it has two MF available (considering its SMC PP bonus and possessed SW PP, if any), even if its move requires no MF expenditure (11.751); neither a *Minimum Move*, nor *advance into Difficult Terrain* can be used for such entry. Infantry that enter a cave (even from above-ground) or Cave Complex cannot enter another cave, Cave Complex or tunnel during that same phase.

EX: A Japanese squad carrying six PP may neither move nor advance from a cave to an Accessible Cave Complex (or vice-versa), because it has only one MP to expend and cannot use Double Time. A Leader stacked with it could not apply his MF bonus, but if he has two MF available he could add his IPC to the squad's to increase its available MF to two, thereby enabling them to enter (as a stack) an Accessible cave or Cave Complex.

11.75 HIDDEN MOVEMENT: Currently hidden Infantry (and their SW/Gun), even if not originally set up using HIP, that enter a cave from an Accessible cave/Cave-Complex or that enter a pillbox from a Cave Complex (through a connecting tunnel; 11.932-.933) may remain hidden if no Good Order enemy ground unit within 16 hexes has a LOS to their new Location when they enter it. If such a LOS does exist, they are placed onboard concealed and thereafter are subject to normal "?"-loss rules *[EXC: if in Open Ground in a Depression as they exit one Cave to enter another thereIN, they are completely revealed if such a LOS exists].* A hidden unit/stack that exits a cave to above-ground is immediately placed onboard concealed but its "?" can be lost (even instantly) as per normal "?"-Loss rules *[EXC: it may remain hidden if exiting one cave to enter another in the same hex, provided no Good Order enemy ground unit within 16 hexes currently has a LOS INTO that hex].* Infantry that enter/exit a hidden cave to/from aboveground need not reveal the hexside (if any) they have just "crossed". When non-hidden Infantry (even if not in Good Order) enter a cave that no Good Order enemy ground unit within 16 hexes Currently has a LOS to, they (and their SW/Gun/prisoner[s]) may immediately

become hidden; i.e., they may be removed from the board (instead of being moved into that cave/Cave-Complex) and placed in the appropriate Cloaking Box. Infantry in a cave cannot become hidden at the end of their CCPh. All Infantry, even if not originally set up using HIP and even if not in Good Order, automatically become/remain hidden as they enter a Cave Complex.

11.751 MF COST: Infantry that enter a non-hidden Cave expend no MF to do so if they remain hidden (11.75) when they enter it. Infantry that enter a hidden cave expend no MF to do so. Entry of a Cave Complex costs no MF.

11.76 MANHANDLING: A Gun *[EXC: one with a Large Target Size]* may be Pushed during the MPh by a MMC (or its SMC equivalent) from a cave to an Accessible Cave Complex (or vice-versa) as per 11.75-.751. No Manhandling DR is needed. Manhandling into/out-of a cave/Cave-Complex/tunnel is otherwise NA.

11.77 ROUTING: A broken Japanese unit need not rout to the nearest woods/building if it can rout to a cave that is at least as close (in MF). A broken unit in a cave or Cave Complex is not required to rout to the nearest woods/building. A broken but non-DM unit in a cave is made DM by the presence of an ADJACENT (11.6) enemy unit in the normal manner. A broken unit in a Cave Complex cannot voluntarily remain DM, nor can it rout out of that Complex (11.73).

11.8 TEM & ATTACK EFFECTS: A cave has a +4 TEM *[EXC: its TEM is +6 vs OBA/Area-Target-Type attacks]*. This is indicated on the counter by "1+4+6" in the Strength Factor. Cave TEM is not cumulative with any other +/- TEM, but is cumulative with SMOKE DRM. A cave is considered an Interior Building Location for all weather- and environment-related effects (only); i.e., no wind, rain, snow, dust, fog, mud, etc. can ever exist in a cave. Any unit/weapon that fires out of an Overstacked cave is subject to Area Fire (as well as normal Overstacking) penalties. A unit in a cave cannot claim Wall Advantage. Non-hidden, non-prisoner Infantry in caves are eligible sniper targets. No type of attack can affect a Cave Complex or its contents in any way *[EXC: see 11.88]*.

11.81 (NON-)HIDDEN CAVES: Each attack *[EXC: Area Target Type; OBA; Aerial bombs; Residual FP; Bombardment]* vs a hex that contains one Known (to the firer) cave must predesignate one such cave in that hex as its target if it wishes to possibly affect that cave/its-contents; once one cave is predesignated, no other Location in that hex can be "hit" by that attack *[EXC: Spraying Fire (11.811); FT (11.834); canister (11.836)]*. Neither a hidden cave nor its contents may be predesignated as a target, included as part of any Random Selection DR, or hit/affected by any attack other than Bombardment (11.841) *[EXC: a FT can also attack the occupants of all Accessible caves (11.834); WP can reveal all Accessible caves (11.851).]*

11.811 SPRAYING FIRE: Provided they are predesignated targets (11.81), Spraying Fire can affect two (only) cave Locations that are within one level of each other and share a common CA Hexside vertex. However, a Spraying Fire attack cannot include > one cave Location if it includes a non-cave Location, nor can one that includes two non-cave Locations include any cave Location.

11.812 CONCEALMENT: Hidden/concealed status in a cave neither halves the FP of, nor adds a TH DRM to, attacks vs its occupants. However, all other HIP/"?" benefits apply unchanged.

11.83 SW/GUNS: Neither mortar nor AA fire is allowed from a cave *[EXC: a Japanese light mortar [24] may be fired from a cave unless its Entrance Hex is a dense-jungle/bamboo hex whose total obstacle height exceeds that cave's level]*. Each Gun in a cave is considered to have a normal (i.e., neither Small nor Large) Target Size for TH purposes. Leaders in a cave may Spot for mortars in the normal manner.

11.831 AREA TARGET TYPE: A non-hidden cave and its contents are immune to any Target Type attacks whose LOS/LOF enters its hex outside of its CA Hexside. For bomb attacks vs caves see also 11.86.

11.832 ACQUISITION: When using the Infantry Target Type, Target Acquisition may be gained/retained vs a Known (to the firer) cave even if that cave contains no Known enemy unit (/even if firing SMOKE as per 11.85).

11.833 DC: A DC may be Placed into a cave only by an unpinned, Good Order, non-Climbing Infantry unit that expends two MF (cave entry cost), plus any required SMOKE MF cost, to Place it while ADJACENT (11.6) to the cave—or as per 11.8331. A DC may be Thrown into a cave only by an adjacent, unpinned, Good Order, non-Climbing Thrower who is not more than one level lower than, and who has a LOS to, that cave - and only if the Thrower's owner makes a subsequent Final dr (Δ) of ≤ 3 using the following drm (as applicable): +1 if the cave's level is > that of the Thrower; +1 if the Thrower is in a moving/Motion vehicle; -1 if the Thrower is ADJACENT (11.6) to the cave; and -1 if the Thrower is Heroic/Fanatic. When detonated, a DC operably-Placed/successfully-Thrown into a cave attacks only that cave and its contents, and receives no DRM of any kind *[EXC: a Placed DC receives a -4 DRM if no unconcealed Good Order Japanese MMC was in the cave when it was Placed]*. If a Thrown-DC dr is unsuccessful, that DC falls unpossessed to the Base Level of that cave's Entrance Hex and (unless it malfunctions) will attack that cave, its contents and its Entrance Hex (and the Thrower's Location, if not in that Entrance

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Hex), with all DRM (including the cave's +4 TEM) applying in the normal manner *[EXC: it does not attack the cave (and its contents) if it and the cave are now at different levels; it does not attack any other cave or cave contents in that Entrance Hex]*.

THROWN-DC dr	
Final dr	**Result**
≤3	Successfully Thrown [a]
≥4	Unsuccessful [b]

Die roll modifiers:

+1	Cave's level is > that of Thrower
+1	Thrower is in moving/Motion vehicle
-1	Thrower is in ADJACENT (11.6) to cave
-1	Thrower is Heroic/Fanatic
a	:DC attacks cave and its contents, with no DRM of any kind.
b	:DC falls unpossessed to Base Level of Entrance Hex and (if no malfunction) attacks that cave, its contents and Entrance Hex (and Thrower's Location, if not in that Entrance Hex), with all DRM (including cave's +4 TEM) applying in normal manner [EXC: attack vs cave (and its contents) NA if DC and cave now at different levels; attack vs other cave/cave contents in Entrance Hex NA].

11.8331 CLIMBING: An unpinned, Good Order Infantry unit at a higher elevation than a cave but not in its CA may attempt to Place a DC into it by declaring such and moving onto a Climb counter whose arrow touches a vertex of that cave's CA Hexside (or, for a cave in a Depression, touches a vertex of the hexside the Cave counter's arrow points directly away from). This type of Climbing is allowed even along a non-cliff hexside—in which case the Climb counter is placed in the cave's hex; [25] such a Climbing unit is considered to be in the hex containing its Climb counter and in the Location specified by the level of that counter. All Climbing rules apply except as stated otherwise (e.g., no Falling DR is made unless the unit is actually Climbing a cliff hexside and must change level). The Climbing unit may attempt to Place its DC only when it is one level above the cave. The attempt is allowed despite the fact that no LOS exists between the unit and the cave. No extra MF expenditure is required for Placement. When the Placement attempt is made, the ATTACKER must make a subsequent dr as per 11.833 (i.e., as if he were Throwing the DC); if the dr is unsuccessful, the DC is eliminated without detonation.

11.8332 SET DC: A DC may be Set in a cave by an Allied unit even though that unit cannot enter the cave. Normal Set DC rules apply except as stated otherwise. The unit must spend its entire MPh to Set the DC while ADJACENT (11.6) to the cave. If the cave's CA Hexside is also a hill/cliff Crest Line hexside, the Setting unit must also be declared to be occupying a specified vertex of the cave's CA Hexside at the same level as the cave. This may require the Setting unit to be on a Crest/Climb counter in certain situations; however, a unit Setting a DC while on a Crest counter cannot claim its entrenchment TEM. A unit on a Climb counter may Set a DC only vs a cave/its-contents. When Set, the DC is put in the cave Location. If no unconcealed Good Order Japanese MMC is in the cave when the Set DC dr is made, that DC receives an extra -4 DRM for IFT (not malfunction) purposes.

11.834 FT: A FT attack vs a cave can affect only the occupant(s) of that cave Location *[EXC: if the cave is in a non-Depression hex, the FT also attacks the occupants of all (even hidden) caves Accessible (11.6) to that cave, using the same FP quartered and the same Original IFT DR]*.

11.835 SCW & HEAT: A SCW *[EXC: PIAT]* fired from a cave causes a Backblast penalty (*GIA 146.22*) *[EXC: firing a SCW other than a PIAT from an Upper-Cliff cave always causes a Desperation penalty]*. HEAT may be fired at Infantry/Gun in a cave.

11.836 CANISTER: Canister FP is halved vs a cave (prior to all other modifications). However, canister can affect the occupants of all in-LOS caves that its firer has predesignated, as well as each aboveground Location that is within one level of (and in the same hex with) a cave being attacked by that canister.

11.837 RADIO/FIELD-PHONE: A radio may be used in a cave only if it has remained therein since the scenario's initial setup. A field phone may be used in a cave; moreover, its Security Area (*COD Supplement H*) may partially comprise a line of contiguous, Accessible cave/Cave-Complex Locations even if their hexes do not have the same coordinate letter or number. The subterranean portions of a Security Area are immune to DR results that would cause the field phone line to be cut *[EXC: any HE FFE Original KIA DR vs, or the elimination of, a cave Location that is part of the Security Area]*.

11.84 OBA: A non-hidden cave and its contents are immune to OBA unless the attack vs its hex crosses that cave's CA hexside. For this purpose, OBA is considered traced from the center of the road exiting the firer's Friendly Board Edge at hexrow Q, or at hex A[5]/6 or GG[5]/6, as applicable *[EXC: a non-Aerial Offboard Observer's hex always serves as that hex for its battery]*.

11.841 BOMBARDMENT: A cave has a Morale Level of 11 vs Bombardment. Every cave in a Bombarded hex must take a NMC. If it passes it is unaffected, its contents take no Bombardment MC, and all HIP therein is retained. If the cave fails its NMC, it and all of its contents are eliminated; if they are hidden, this is done

without telling the opponent where the elimination(s) occurred or what was eliminated (except for VP/ELR purposes as per 11.88).

11.85 SMOKE: SMOKE may be placed in a Cave counter's hex in the normal manner, in which case the SMOKE counter is placed (and considered to be) above all Cave counters in that hex. Each SMOKE-grenade/Direct-Fire-ordnance attempt to place SMOKE into a cave itself must predesignate that cave as its target; such attempts may be made even during a Heavy Wind. Indirect Fire cannot place Smoke in a cave, but can place WP in a cave if it achieves a WP CH vs that non-hidden cave Location. WP successfully placed (by any means) in a cave is automatically a CH therein, and uses the reversed TEM applicable to that type of attack. Smoke dispensers (D13) cannot place smoke in a cave. An attempt to place SMOKE grenades in a cave may be made if the placing unit is either in, or is in a position where a DC could be Thrown into (11.833), that cave. Such an attempt made from aboveground succeeds only upon making a Final Thrown-DC dr of ≤ 3 as per 11.833 (i.e., as if the unit were Throwing a DC). Each ^{1}/2" SMOKE counter placed in a cave remains onboard (beneath that Cave counter) and in effect until the end of the Player Turn in which it was placed. A Direct-Fire ordnance attempt to place SMOKE in a cave requires the firer to have a LOS to the target cave and to use the Infantry Target Type. The +2 Basic TH modification for firing SMOKE at 12 hexes is NA, but the cave's +4 TEM (TH Case Q) applies. If the Final TH DR yields a hit (and the Original TH DR is ≤ the SMOKE Depletion number), the appropriate SMOKE is placed beneath the Cave counter. Acquisition may be gained (11.832), and retaining Multiple ROF is possible. A predesignated attempt to place SMOKE in a cave, which fails only due to too high a subsequent-dr/TH-DR, causes the SMOKE (if created) to be placed at the Base Level of that cave's Entrance Hex, but no WP NMC ensues from that attempt. SMOKE in a cave is not considered to exist in the rest of that hex, nor does SMOKE above all Cave counters in a hex exist in those caves. Contrary to the "outgoing LOS" DRM of SMOKE in a cave equals twice that SMOKE's current maximum applicable DRM (instead of an additional +1).

11.851 SMOKE never drifts into/out-of a cave. However, when a WP counter in a cave is flipped to its Dispersed +1 side, and when any (i.e., ^{1}/2" or ^{5}/8") WP counter in a cave is removed from play (even via elimination of that Cave counter), all other hidden caves Accessible to that cave, plus all other hidden caves set up within the boundaries of the same Cave Complex (if any) which that cave is set up within, plus the above-ground entrances/exits of all tunnels that connect to that Complex, are immediately revealed (regardless of LOS), provided they are also at a higher level than that cave. No SMOKE can ever exist in a Cave Complex. A hidden pillbox is not revealed just because a tunnel entrance/exit in it is; the tunnel's owner states merely that a tunnel opening exists in that hex.[26]

11.86 AERIAL: A non-hidden cave is considered a building for Sighting TC (E7.3) purposes. If a FB/DB passes a Sighting TC vs a cave and declares that cave a designated target, all (including friendly) occupants of that cave's Entrance Hex which are in the plane's LOS are assumed to have been Sighted as well. Each Aerial attack vs an Upper-Cliff-cave/its-contents receives an extra TH (for bombs) or IFT (for MG) DRM equal to the difference in levels between it and the Base Level (or Crest level—whichever is higher) of its Entrance Hex. Each Aerial attack vs a cave/its-contents is also resolved simultaneously vs all Sighted units/targets in its Entrance Hex just as if the plane were attacking that Entrance Hex, using the same Original TH/IFT DR used vs the cave but modified individually for each target. If Napalm (17.4) is used for a bomb attack, the resulting Blaze and Smoke counters (17.41) are placed in the Entrance Hex unless otherwise prohibited.

11.87 CC: No type of CC attack is allowed between a unit in a cave and one outside of it.

11.88 ELIMINATION: A cave can be eliminated only by a DC attack, or by a HE *[EXC: HE Equivalency]* attack of ≥ 100mm, that is resolved in that cave *[EXC: Bombardment (11.841); dozer (15.22)]*. If the Original (Final, for a Set DC or for one Placed while no unconcealed Good Order Japanese MMC occupies the cave; 11.833) IFT DR of the DC attack is a KIA, or if the HE attack is a CH, that Cave counter and all of its contents are eliminated. A unit/SW/Gun in a Cave Complex is immediately eliminated when it lacks a legally traversable route (regardless of length) into-a-cave/to-above-ground. When this occurs, the opponent is not told exactly what was eliminated. He is informed of the Casualty VP he has thereby amassed, if scenario Victory Conditions requires him to amass Casualty VP; and he is informed of any change in the Japanese ELR due to resulting Battlefield Integrity effects.

11.9 MISCELLANEOUS: No cave or Cave Complex may be created/moved during play.

11.91 OB: The number of caves available to the Japanese is listed in their OB. However, each cave set up as an Upper-Cliff cave (11.113) subtracts three from the number of caves available for setup. Cave Complexes (11.2) are not listed in the Japanese OB. The number of Cave Complexes available to the Japanese side is not reduced by the setup of any Upper-Cliff cave(s).

EX: If the Japanese OB contains four Cave counters, they may be set up as four caves that do not require Climbing to enter from aboveground, or as one such cave plus one Upper-Cliff cave. in both cases, one of those caves (owner's option) will also be the

Primary cave of a Cave Complex. If the Japanese OB contains only one, two or three caves, one Upper-Cliff cave may be set up but the remaining caves (if any) are forfeited; and, regardless of whether one, two or three caves are set up, they do not grant the Japanese side a Cave Complex (since 25% [FRD] of one, two or three is zero).

11.92 GUNS: One non-vehicular Gun of any type and Caliber/Target Size may be set up in each cave *[EXC: NA if it is being Animal-Packed]*. While one Gun occupies a cave, no other Gun may be set up in or enter (or be re-assembled from a dm SW in) that Location. The CA of a Gun in a cave always utilizes its normal VCA from within a cave but its available LOS coincides within that Cave counter's CA at all times—but this itself does not prevent it from being Pushed from that cave into an Accessible Cave Complex or vice-versa.

11.93 FORTIFICATIONS: No Fortification may exist in a cave/Cave-Complex; however, a tunnel may connect to a Cave Complex as per 11.933. All Fortifications in a Cave counter's hex retain their normal capabilities and effects, but only outside that cave and at their normal setup level.

11.931 WIRE: Infantry exiting a cave directly into/INTO a wire Location are placed above that Wire counter.

11.932 PILLBOX: Infantry in a pillbox cannot enter a cave/Cave-Complex without first entering the aboveground Location in their hex *[EXC: they may enter a Cave Complex (and Infantry may enter a pillbox from a Cave Complex) via a connecting tunnel; 11.933]*. See also 11.75.

11.933 TUNNELS: Standard tunnel rules apply to tunnels connected to Cave Complexes except as stated otherwise. For the purposes of Rules Section G11, a tunnel is considered one subterranean Location Accessible to the two Locations it connects, and the two Locations it connects are considered Accessible to each other *[EXC to both: a tunnel may be entered only during the MPh/RtPh]*. A tunnel may connect an above-ground Location to a Cave Complex or connect two different Cave Complexes—but may never enter/exit a hex that contains any Irrigated-paddy/sand/marsh/swamp/Water-Obstacle (including hexside-pond)/non-dry-stream. Otherwise, within its three-hex length limit, a tunnel may have a subterranean entrance/exit in any hex of a Cave Complex. A tunnel connected to a Cave Complex may change elevations, but not more than one level per hex, and must always lie one level lower than the Base Level (or, for an Interior Building Hex, than the ground level) of its hex *[EXC: any tunnel entrance or exit not in a Cave Complex is assumed to lie at the Base Level (or, for an Interior Building Hex, at the ground level) of its hex]*. A tunnel entrance/exit revealed by WP (11.851) may be Recovered and subsequently destroyed even if no Japanese unit has used it in Allied LOS.

11.934 SEWERS: Sewers cannot connect to any other type of subterranean Location.

11.94 CONTROL: An unhidden cave not occupied by a Good Order Japanese MMC is considered Controlled by any Good Order Allied Infantry MMC ADJACENT (11.6) to it. Such Control remains in effect—regardless of that Allied unit's subsequent status/presence—until the cave is occupied by a Good Order Japanese MMC (even if hidden). A subterranean unit can Control only the Location it presently occupies.

11.95 FIRE: A Blaze in a cave/Cave-Complex hex but outside that subterranean Location does not force that cave's/Cave-Complex's occupants to leave the hex (nor would SMOKE rising from higher than their level affect them). Caves and Cave Complexes are not Burnable Terrain.

11.96 NIGHT: A cave is illuminated only if its hex and its Entrance Hex are illuminated. No Cave Complex can ever be illuminated. A unit moving in a cave or Cave Complex is not subject to Straying until it moves aboveground. Despite being Concealment Terrain, the MF entry cost of caves/Cave-Complexes is not increased at night.

11.97 BERSERK: Infantry in a cave become Battle Hardened on a Final Heat of Battle DR of ≥ 9. No cave occupant is considered a Known enemy unit for berserk-unit creation/charge purposes.

11.98 PRISONERS: An Allied prisoner in a Cave Complex must have a Guard at all times, and cannot attack its Guard in CC. Should that Guard be eliminated anyway (e.g., by Fate) while no other unit is present/able to become the new Guard, the prisoner may attempt no action whatsoever. Any Allied unit that becomes rearmed/an-escaped-prisoner while in a cave is instantly moved to that cave's Entrance Hex, regardless of Overstacking/enemy-units in that Location and even if the Allied unit must undergo a mine attack (or be put on a Climb counter) to enter it.

11.981 INTERROGATION: If a unit in a cave is revealed by Interrogation (*COD 121.2*), that cave is revealed as well. If a hidden Primary cave is revealed by Interrogation, the prisoner player must announce that it is in fact a Primary cave. Interrogation cannot reveal any Cave Complex contents.

11.99 DYO: Only the Japanese side may purchase caves. Each Cave counter has a BPV of 20 prior to 1944, and of 10 in 1944-45.

12. LANDING CRAFT

[Note: This rules section does not apply to amphibious vehicles.]

12.1 Eight types of Landing Craft (LC) are provided in Blood & Sand. The LCP(L), LCVP, LCA, LCM(3), LCT(4) and LCI(S) are U.S./British types, while the Daihatsu and Shohatsu are Japanese. LC are treated as boats (COD 128) except as stated otherwise, but the rules specific to assault boats and rafts do not apply. LC are also considered vehicles; however, they are not treated as AFV except as specifically indicated.

12.11 INHERENT CREW: Each LC, regardless of its nationality/type, has an Inherent crew whose Morale Level is 8. Normal rules for CE status (and any Collateral attacks) apply except as stated otherwise. An LC Inherent crew can never be BU or claim any BU benefit and are always in CE status. An armor leader can be neither part of a LC's Inherent crew nor generated by a LC.

12.111 STUN/recall: A LC does not suffer Recall due to MA disablement. A LC Inherent crew can be Stunned, but does not BU (COI 64.44). Any recall effect (COI 64.44, COD 129.44) due to an attack suffered by a LC Inherent crew is always treated as a Stun result only; i.e., no recall ensues (ie it does not exit the board). However, the +1 DRM effects of all Stun results vs an LC Inherent crew is cumulative. For Stun and recall effects see COI 64.44 and COD 129.44. A LC whose crew receives a Stun result does not Stop; however, if it is not Beached/immobilized, the attacker immediately makes a Random Direction dr for the LC and repositions it within its present hex so that the randomly determined hexside lies within its VCA[27] and, if the Stun occurs during the LC's MPh, it is then assumed to have expended all of its remaining MP (if any) in that new facing. Being Stunned does not itself make a LC Immobile.

12.112 CREW COUNTER: A LC Inherent crew cannot voluntarily abandon its LC, nor is it subject to Immobilization MC. However, whenever an LC Inherent crew Survives (it is represented by a 1-2-6(5) vehicle-crew counter of some nationality (e.g., Chinese, Italian or Axis Minor) that is not in play. Such a crew counter is assumed to be of the same nationality as the LC it came from and to have all normal vehicle-crew qualities, but is considered Inexperienced Personnel *[EXC: if firing a SW MG or vehicle-mounted AAMG, the Inexperienced B# penalty (COI 94.3) does not apply]*.

12.113 INEXPERIENCED: If a LC's Inherent crew is defined as Inexperienced, that LC has its MP allotment reduced by one. An Inexperienced LC Inherent crew has no other effect.

12.114 VP: A LC crew's Casualty VP value is "1", whether it is Inherent or not.

12.12 PASSENGERS: When used in reference to a LC, the term "Passenger" (or "Passengers"—even when mentioned in acronym form as "PRC") refers collectively to all Personnel/SW/vehicles/wrecks/Guns/horses/boats (and the PRC of Passenger vehicles) being carried by or (un)loading from/onto that LC. All LC may carry Personnel/SW, but only those having a Ramp (12.41) may carry vehicle(s)/Gun(s)/horse(s)/boats *[EXC: no LC may be a Passenger]*. Within these restrictions, a LC may carry any combination of the items listed in the LC Passenger PP Cost Chart on the Chapter G divider, with the total indicated PP applying to the LC's PP capacity. A LC retains all unpossessed equipment (and all wrecks) aboard it.

12.121 VEHICLE/GUN/SW: A vehicle that is a LC Passenger may itself carry/tow Passengers/SW/Gun(s) if otherwise able and allowed to. A Mule LC Passenger may Animal-Pack a Gun as per 10.1. The VCA of each vehicle, as well as the CA of each Gun, that is a LC Passenger must coincide with that LC's VCA (or "rear" VCA); see also 14.23. A Passenger vehicle cannot claim or retain Motion status independently of its LC.

12.122 MORALE: All Personnel and Inherent-crew Passengers aboard a LC are considered to have a Morale Level of 8.

12.123 BU/CE: LC Passengers *[EXC: certain large vehicles/Guns as per 12.65 and 12.671]* are considered BU through their/the-LC's armored Target Facing(s). LC Passengers can never be CE or claim any CE benefit(s)—even if not normally allowed to be BU (e.g., a Carrier HS/crew *[EXC: see 12.674]*).

12.124 ACTIONS: Aside from (un)loading (12.4-.421; 12.45), the only actions allowed by LC Passengers are MC resolutions (12.4-.421; 12.13), unhooking of Guns (12.42), wreck removals (12.43) and SW Transfers/Recoveries.

12.13 MC's: While aboard a LC, all Inherent crews and Personnel Passengers (even the PRC of Passenger vehicles) are immune to Immobilization MC, Pinned MC, LLMC, and booby-trap attacks, and are not subject to Pin or Heat-of-Battle results. A LC crew never breaks while Inherent; i.e., one that suffers a break while receiving no, or a reduced, CE DRM (12.6) always suffers a Stun result instead (see also 12.111). While aboard an LC, any Personnel Passenger that suffers a break result for any reason always suffers a Casualty Reduction result instead. No leadership/heroic modifier may be applied by/to a unit aboard a LC.

EX: An attack by Small-Arms/MG fire vs an LCP(L) through its unarmored side Target Facing—or through its armored front Target Facing from a Location with sufficient elevation advantage to lower its CE DRM to < +2—will Stun that LC's crew if it fails any MC caused by that attack. A SMC/MMC aboard an LCM(3)—even if a Passenger on a vehicle being carried by that LC—suffers Casualty Reduction whenever it fails a MC.

12.14 RIDERS: No type of Rider is allowed on a LC or on any type of conveyance aboard that LC.

12.15 STACKING: LC PRC (including Passenger vehicles) do not count towards Location stacking limits; therefore, they cannot be Overstacked. However, a LC is Overstacked when in the same Location with any other vehicle that is not a Passenger aboard a LC.

12.151 VEHICLE & INFANTRY STACKS: All 5/8" vehicles *[EXC: motorcycles]*, their PRC and hooked-up Guns, and all wrecks, that are Passengers on the same LC must be stacked together, and are referred to collectively as that LC's Vehicle Stack. Their top-to-bottom arrangement in that Stack represents their front-to-rear positions aboard that LC for (un)loading purposes (12.42-.43). All Personnel counters *[EXC: the Passenger(s) of that LC's Passenger vehicle(s) (if any)]*, and all motorcycles, horses, boats and Pushed Guns, aboard the same LC are referred to collectively as that LC's Infantry Stack. Each Personnel counter in the LC's Infantry Stack is referred to as an Infantry-Passenger (but is still considered a Passenger—not an Infantry—unit). The top-to-bottom arrangement of the Vehicle Stack may not be re-arranged during play, but the Infantry Stack may be re-arranged just as if that LC were an Open Ground land hex (see also 12.45). The number of counters each Stack contains may change due to (un)loading/unhooking (12.4-.421;12.45).

12.2 MOVEMENT: LC expend only MP, and cannot be carried/moved on(to) land (including marsh/swamp) or a frozen Water Obstacle. LC are not paddled, and need no minimum number of Passengers in order to expend MP. The normal movement rate for LC is one MP per Water Obstacle Location entered (even at night). A LC may change its VCA only during its MPh, and must expend one MP per hexspine to do so *[EXC: when changing VCA due to a Stun; 12.111]*. A LC entering a Location that contains a wreck/friendly-unit *[EXC: SMC]* in the water must expend one extra MP for each, as part of that Location's COT. LC do not expend Stop MP *[EXC: when using Reverse movement (12.22) and/or adjacent to a pier (13.731)]*, but must expend a start MP to un-Beach. LC is considered non-Stopped (e.g. in Motion) unless it is Beached/immobilized (see also 13.4421), and is considered Mobile (even if Stunned) unless it is immobilized/Aground. LC may use Platoon Movement during the MPh, like AFV with radios.

12.21 AGROUND: When during its MPh/APh a LC enters a shallow-OCEAN hex (13.4) while at the same time becoming closer (in hexes) to any Beach hex (13.1) that lies within three hexes of that shallow OCEAN hex, that LC's owner must immediately (i.e., before any Beaching/Stopping declaration/attempt as well as before Defensive First Fire) make a Bog DR ($\triangle$) *[EXC: no such Bog DR is made if Heavy Surf effects (13.441-.447) apply in that hex]*. The only DRM is that LC's Bog DRM (the "+#" just to the left of the printed MP allotment on the counter), and a +1 if the hex contains wire and the LC's Target Size is not -3 or -4 (14.52). If the Final DR is 12, that LC immediately runs Aground; i.e., it Bogs and Beaches in that hex. However, it Beaches within that hex—not across a hexside as per 12.3. Mark the LC with an Aground counter. A LC cannot voluntarily run, and cannot Drift while it is, Aground. One Bog DR is made if using Platoon Movement (HL-NA 181.22).

12.211 FAST AGROUND: An otherwise-Mobile LC may attempt to remove its Aground (e.g. Bogged) status at he start of its MPh, provided it has not fired during its PFPh. Removal is attempted by expending an amount of MP equal to an Original dr. If that Final dr ($\triangle$) is ≤ 4, the LC is freed (even if its total MP allotment is < the Original dr) but is still in the Bog hex and is now considered to be using Reverse movement (12.22); the LC may then use any remaining MP's to change-VCA or move normally. If the Final dr is a 5, the LC becomes Mired (12.2111). If the Final dr is 6, the LC becomes Fast Aground; i.e., it remains Aground (and thus Beached) but is immobilized in that hex. Its Aground counter is flipped to the Fast Aground side, and its Mired counter (if any) is removed. The only possible drm is a +1 if the LC is presently Mired. A LC (or LC wreck) can also become Fast Aground as per 12.69, 13.441, 13.4421 and 13.4422.

12.2111 MIRED: If a LC becomes Mired, it is marked with a +1 Mired counter and thereafter receives a +1 drm to its future Bog Removal attempts as long as it is Mired. The Mired drm is not cumulative for being Mired more than once.

12.22 REVERSE: An LC may use Reverse movement as per COI 71, but at only double its applicable forward-movement entry-cost per hex. It may end its MPh in Reverse Motion (HL-NA 181.1). Unless adjacent to a pier 13.731, an LC may not voluntarily end its MPh in a stopped status, in which case it is always considered in Motion. Prior to using Reverse Motion to exit its current hex, a LC must expend 2 additional MP's in the same hex.

12.23 DRIFT: LC Drift in a River as per COD 126.32; otherwise they Drift only in Ocean during Heavy Surf. See 13.12, 13.44 and 13.444.

12.3 (UN)BEACHING: A LC may Beach across any non-cliff, water-land (including a Beach-OCEAN [13.2] and OCEAN-Hinterland [13.41]) hexside *[EXC: LC Beaching can occur during the APh only if Heavy Surf is in effect in the LC's hex (13.44) and only via an (un)Beaching DR (13.442); no LC may Beach onto a bridge]*. Position the LC counter to straddle that hexside, but without changing its VCA. A Beached LC is still considered for all purposes to be in that Water Obstacle Location. A LC un-Beaches by declaring such and expending a start MP (based on a dr if Aground; 12.211); it is then considered to be using Reverse movement, and must Stop before using forward movement (as per 12.22). A LC is also Beached when it is Aground (12.21-.211) or a wreck (12.69).

12.4 (UN)LOADING: Except as stated otherwise, normal Vehicle—not Boat—(un)loading rules apply to LC and their Passengers. A LC Passenger may unload into an enemy-occupied hex. If a LC is Aground (or is Beached across a hexside that is not within its VCA), units may unload from it only into its hex, and do so by expending 25% (FRU) of their MF/MP allotment (plus COT MP if it is a vehicle). There is no penalty cost for the presence of the LC in the Location, but Overstacking will apply when a vehicle *[EXC: motorcycle]* is in the same Location as an LC but is not a Passenger on one. A unit wishing to load onto an Aground LC must be in (or enter, expending that Location's COT to do so—plus, if it is a vehicle, one extra MP for the presence of the LC) that LC's Location, then expend 25% (FRU) of its MF/MP allotment (plus, if it is a vehicle, one MP as the LC's COT).

12.401 If the LC is Beached across a hexside that lies within its VCA, units may unload from it across the Beached hexside. A unit thusly unloading must expend 25% (FRU) of its MF/MP allotment (plus COT MP if it is a vehicle); if the unit is unloading to a higher elevation, this % cost is doubled (if expending MF) or increased by four MP. A unit wishing to load follows the reverse of this procedure—but if it is a vehicle it must also expend, after paying the 25 % of its MF/MP allotment to load, one MP as the LC's COT.

12.402 If the LC is immobilized and in shallow water but is not Beached then only Personnel and their possessed SW may (un)load from/onto it, and may do so only to/from the LC's hex. Such (un)loading requires a 50% (FRU) MF/MP expenditure.

12.403 A vehicle aboard an LC does not expend a MP until it attempts to unload. Passengers (un)loading from/onto a LC may not use Armored Assault, Platoon Movement or Assault Movement, nor may they attempt ESB, during that MPh. An allowed vehicle may (un)load while towing a Gun (unless using Reverse movement) by also paying the extra MF/MP for towing. A vehicle may neither unload from a LC onto, nor load onto a LC from, a bridge Location. See also 12.121.

12.404 If a LC's printed MP allotment has been reduced by an Inexperienced-crew (12.113)/Blaze(s) (12.68), it is still assumed (for Defensive Fire purposes) to expend the required percentage of its printed MP allotment when (un)loading any Passenger(s). If the total required cost for a unit to (un)load from/onto a LC exceeds 100% of that unit's Inherent/printed MF/MP allotment, it can (un)load only by making a Minimum Move.

12.41 RAMP: If "PP" on the LC counter is underlined, that LC has a bow ramp and may carry any type of Passengers as per 12.12. If "PP" is not underlined, that LC may carry only Personnel/SW. A LC's ramp is always considered "up" (i.e., raised) *[EXC: it is considered "down" (i.e., lowered) from the time the first Passenger (un)loads from/onto that Beached LC until such time as that LC either expends a start MP to un-Bleach or makes a 12.211 DR in an attempt to remove its Aground status (whichever occurs first); see also 12.43]*. There is no MP cost for a LC to raise or lower its ramp. If a LC has no ramp (and/or is immobilized and in shallow water but is not Beached; 12.402) the normal 25% (un)loading cost is increased to 50%(FRU). A LC's ramp cannot be jammed or otherwise damaged or eliminated.

12.42 PASSENGER VEHICLE/GUN: Vehicles may unload from a LC only in the top-to-bottom order of its Vehicle Stack; hence if the top-most 5/8" vehicle cannot/does-not unload, no 5/8" counter beneath it in that Stack can. A vehicle that loads onto a LC is placed at the top of that LC's Vehicle Stack (if any). Hooking up a Gun to a vehicle is NA while both are LC Passengers, but unhooking is allowed just as if the LC were an Open Ground land hex *[EXC: unhooking is NA if it would cause the LC's PP capacity to be exceeded]*. A Gun thusly unhooked is placed beneath its possessing Infantry-Passenger unit. A SW/Gun may not be (un)Packed while aboard a LC.

12.421 MANHANDLING: Manhandling a Gun, boat or motorcycle from/onto a LC is allowed only if the LC is Beached, but otherwise follows the same procedure as (un)hooking a Gun from/to a towing vehicle (SL 48.6-61) *[EXC: if the LC is Beached across a hexside that lies within its VCA, it and the item being Manhandled start/end the procedure adjacent to each other across that hexside as per 12.401; Manhandling an item off of a LC is NA if any non-motorcycle vehicle is currently aboard that LC]*. MF/MP (un)loading costs are assessed as per SL 48.6-61 as applicable (possibly modified per 13.443 if Heavy Surf is in effect). Any resulting TI status does not apply to the LC or its other PRC.

12.43 PASSENGER WRECK: If a non-burning wreck appears in a LC's Vehicle Stack, no 5/8" counter beneath it in that Stack, nor any 5/8" counter in that LC's Infantry Stack, may unload until the wreck has been removed *[EXC: such removal can occur only if the LC is Beached, no 5/8" counter (except for possibly the removing AFV) is stacked above that wreck, and no 5/8" counter lies between that wreck and the removing AFV]*. When such removal occurs, the LC's ramp is considered to be down as if it were unloading Passengers. A Passenger vehicle/wreck aboard a LC does not increase the cost to enter the LC or its Location. Each wreck aboard a LC still applies its pre-wreck PP cost to the LC's PP capacity. An Immobile vehicle is considered equivalent to a non-burning wreck for all of the above purposes.

12.44 BLAZE: No unit may board a LC that contains any Blaze(s). An LC that is itself Ablaze (12.68) has no effect on the ability of its Passenger(s) to unload. A burning wreck aboard a LC cannot be removed, so the only Passenger(s) that can possibly unload from it are the vehicle(s) (and their PRC/towed-Guns) stacked above that burning wreck in the Vehicle Stack and that LC's Infantry-Passenger(s) (and their possessed SW).

12.45 PASSENGER-VEHICLE PRC: Unless otherwise prohibited (e.g., by the LC's PP capacity; 12.12), PRC *[EXC: a LC's Inherent crew; Riders are NA (12.14)]* may (un)load from/onto a LC's Passenger vehicle(s) to/from the LC itself during that LC's MPh, just as if the LC were an Open Ground land hex *[EXC: no MOG/NAM/Overstacking penalties apply]*. Their MF expenditures do not affect, and are not affected by, the LC's MP expenditures *[EXC: all such MF/MP expenditures are governed by the "simultaneous expenditure" of MF and MP (12.4) during any MPh in which such a Passenger/crew also unloads from the LC itself (or boards it and then becomes a Passenger/crew of a vehicle aboard that LC)]*.

12.5 NON-CC ATTACKS FROM/BY LC: The Inherent weapon(s) of a LC may Prep Fire only if the LC is Fast Aground and Inherently crewed. All penalties for moving/Motion/non-Stopped/AFPh fire apply in the normal manner. Cumulative Stun DRM (if any; 12.111) also apply. A LC may not conduct an OVR, nor may LC PRC place/fire SMOKE. LC Passengers may not attack in any way.

12.6 NON-CC ATTACKS vs LC: Depending on the type of attack, whether an armored Target Facing is considered to have been struck, and the firer's elevation advantage (if any), LC are treated as either AFV (i.e., armored) or unarmored targets—never as boats. OT rules apply to OT LC through their armored Target Facing(s) as if they were OT AFV. Unlike an amphibious vehicle, being in a Water Obstacle does not make a LC a HD, Very Small target. A LC's down ramp does not make its front Target Facing unarmored.

12.601 DAMAGE: Each LC has a Damage Point (DP) Rating on the Wreck side of its counter. When an attack inflicts DP on a LC (as explained below), it is marked with one DP counter (Right click the counter to adjust the DP indicator on the counter) to show the total number of DP's it has accumulated thus far. When that total equals the LC's DP Rating, it is immobilized; when that Rating is exceeded, the LC is destroyed (12.69). DP are also inflicted by each Blaze on a LC (12.68).

12.602 SHOCK/IMMOBILIZATION: The results of Shock, Possible Shock or Immobilization does not apply to either a LC or its Inherent crew *[EXC: DP Immobilization; 12.601]*, but can apply to a LC's Passenger vehicle(s) (/their PRC) in the normal manner if hit as per 12.65.

12.603 SNIPER: A sniper attack vs a LC is resolved only vs its Inherent crew, and always results in a Stun. LC Passengers are not eligible sniper targets.

NOTE: NEED NEW IFT CHART FOR PV

12.61 NON-ORDNANCE DIRECT FIRE: All non-ordnance Direct Fire attacks vs a LC unarmored facing is resolved on the IFT, using (in addition to all other applicable FP modifications) halved FP unless the LC is Beached. If the Final IFT DR vs the LC is < the IFT FP, DP equal to the difference between those two numbers are inflicted on the LC; if that DR equals that of the IFT, there is no effect on the LC except possibly via a Collateral Attack vs any Vulnerable PRC; if that DR is > than IFT FP there is no effect on the LC or its PRC. A non-ordnance Direct Fire attack vs a LC that passes through its VCA armored facing is treated as an armored target and has no effect on it except possibly via a Collateral Attack vs its Vulnerable PRC.

EX: A 12 FP attack by Small-Arms/MG vs an un-Beached LCP(L) through its unarmored side Target Facing is resolved on the 6 FP column of the IFT chart, and will inflict one DP on the LC if the Final IFT DR is a 5 (6 [IFT FP] - 5 [DR] = 1 DP), or two DP if that DR is a 4, etc. (and a Collateral Attack can also occur vs the LC's Vulnerable PRC; 12.621). That same attack made through the LCP(L)'s armored front Target Facing would have no effect on that LC—but would be resolved Collaterally vs its CE crew as per 12.671. However, that same attack made through the LCP(L)'s armored front Target Facing from a Location with sufficient elevation advantage to lower its crew's CE DRM to < +2 would treat the LC as an unarmored target and would be resolved vs it on the IFT (and vs its Vulnerable PRC as per 12.671).

12.611 FT/DC/MOL: The use of FT/DC/MOL vs an LC/its-PRC is NA; if used vs another target in the LC's Location they have no effect on the LC or its PRC.

12.612 OVR: A LC cannot be OVR; an OVR by/vs another unit in the LC's Location has no effect on the LC or its PRC.

12.613 MINES: The only mines that can affect LC are A-B (Anti-Boat) mines as per 14.51/14.53.

12.62 ORDNANCE DIRECT FIRE: A Direct Fire ordnance attack vs a LC must use the Vehicle (or Area; 12.63) Target Type (or a LATW TH Table) on the TH Table, applying both cases (GIA) J (Moving) & K (Area Fire), in addition to the LC Vehicle size (if any) also applying. If a hit is achieved using the Vehicle Target Type (or a LATW TH Table) it is resolved by a TK DR. If HE was fired, one of the following will occur if the Final TK DR vs the LC is < the Final HE TK#, DP equal to the difference between those two numbers are inflicted on the LC; if that DR equals that TK#, there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is a Dud and/or > that TK#, there is no effect on the LC or its PRC. If AP-type ammo (i.e., AP/APCR/APDS, or any non-Aerial MG, 12.7 or ≥ 15mm weapon, or HEAT) was fired, one DP is inflicted if the Final TK DR is half of the applicable Final TK#; if that DR is > half of, but still ≤, that TK# there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is a Dud and/or > that TK# there is no effect on the LC or its PRC. Ordnance cannot target any Passenger separately from its LC. For Aerial MG/bomb attacks see 12.66.

EX: 75* Gun firing HE on the Vehicle Target Type achieves a hit on the armored front Target Facing of an LCP(L). If the Final TK DR is a 6, one DP is inflicted on the LC; if it is a 5, two DP are inflicted, etc. (A Final TK DR of ≤ 7 can also cause a Collateral attack as per 12.672 or 12.673.) If that same attack hits the LCP(L) on its unarmored side Target Facing, a Final TK DR of 11 will inflict one DP, while a Final DR of 10 will inflict two DP, etc. A 75* Gun firing AP on the Vehicle Target Type achieves a hit on the armored front Target Facing of an LCP(L) at a range of 12 hexes. If the Final TK DR is 3, one DP is inflicted on the LC. If that same attack hits the LCP(L) on its unarmored side Target Facing, a Final TK DR of 4 will inflict six DP.

12.621 MG: If the Final TK DR of a MG hit on a LC being treated as an armored target equals the Final TK #, it causes only a Collateral Attack as per 12.62—it does not automatically Stun the LC.

12.63 OBA/AREA-TARGET-TYPE: An OBA HE attack or Area-Target-Type HE hit vs a fully armored LC treats that LC as armored and is resolved on the IFT using the applicable DRM. If the Final IFT DR vs the LC is a KIA, DP equal to the number of KIA possibilities plus the # of the highest #MC possible are inflicted on the LC; if that DR is a NMC there is no effect on the LC except possibly via a Collateral Attack vs its Vulnerable PRC; if that DR is > a NMC there is no effect on the LC or its PRC. An OBA HE attack or Area-Target-Type HE hit vs a LC that is not fully armored treats that LC as unarmored, regardless of the Target Facing hit or the direction of the firer's LOS/LOF, and is resolved on the IFT's Vehicle line as per 12.61 *[EXC: its FP is not halved as per 12.61; Aerial bomb attacks treat all LC as armored (12.66)]*. The use of SMOKE against a LC/its-PRC is NA (13.47).

EX: 75* Gun firing HE using the Area Vehicle Target Type achieves a hit on a fully armored LCVP. The attack is resolved vs the LC on the 6 FP column of the IFT with a -2 DRM (-1 for an OT LC, and -1 for a LC with all AF < 1), and will inflict one DP on that LC with an Original IFT DR of 4. The same hit on a partially armored LCP(L) would still be resolved on the 6 FP column, but would use the IFT FP and thus would inflict one DP on the LCP(L) with an Original IFT DR of 5.

12.64 CH: The Case C TK# modifier never applies vs a LC itself. A CH vs a LC results only in increasing by one the number of DP inflicted (even if that raises the DP inflicted from zero to one), regardless of any other effect of that attack *[EXC: no DP increase occurs if a Dud (original 12 DR) ensues]*. CH vs LC Passenger(s) are NA except for a vehicle/wreck/Gun hit as per 12.65. See also 12.679.

12.65 HIT vs PASSENGER VEHICLE/GUN: The following apply only to a LC that is carrying any vehicle(s)/wreck(s)/Gun(s) *[EXC: a Gun being Animal-Packed]* whose Target Size is 0/-1/-2. If ordnance/OBA rolls an upper-superstructure hit vs the LC *[EXC: Aerial bomb Near Miss; 12.66]*, the latter's owner determines randomly whether the hit actually occurred vs the LC or instead vs one such vehicle, wreck or Gun (even one hooked up to a vehicle) aboard that LC. If an ordnance attack's Final TH DR vs a LC is one > the number needed for a hit but that DR's Original colored dr is < its Original white dr, one such vehicle, wreck or Gun (chosen randomly by the LC's owner) on that LC is hit—provided that shot does not hit another vehicle Overstacked in the LC's hex. Any hit directly vs a Passenger vehicle is considered a turret/upper-superstructure hit; and, vs the vehicle, wreck or Gun that was hit, is resolved as if that vehicle or Gun were in an Open Ground land hex (a Gun that was hit is treated as an unarmored vehicle *[EXC: an Immobilization result is treated as Gun Malfunction instead]*; any Gunshields is ignored).

EX: An LCT(4) carrying a U.S. M5A1 light tank (Target size "+1"), 2 1/2-ton truck (Target size "0") and M1918 155mm howitzer (Target Size "-1") is hit by ordnance (or attacked by OBA) that rolls an upper-superstructure hit. A subsequent dr is therefore made by the LCT's owner, who assigns the numbers "1-2" to the truck, "3-4"

to the Gun, and "5-6" to the LC. The tank is ineligible because its Target Size is not 0/-1/-2. If the ordnance TH DR vs the LCT misses by one while rolling an upper-superstructure "hit", the truck or Gun is hit anyway (assuming the LC itself is not Overstacked in its hex). The LC's owner then makes a subsequent dr to find which one was in fact hit, assigning "1-3" to the truck and "4-6" to the Gun.

12.66 AERIAL MG/BOMBS: An aircraft MG attack vs any LC always treats that LC as unarmored (regardless of Target-Facing/AF), and is resolved vs it as per 12.61. An aircraft bomb attack vs any LC always treats that LC as fully armored, and is resolved vs it as per 12.62 or 12.63 according to the Target Type used for the attack. If the Vehicle Target Type was used, assume the LC's Aerial AF to be "0" (regardless of Target Facing), and apply TK Cases A (per vehicle rear target armor modifier) and B (height advantage). A Vehicle-Target-Type bomb TH attack that rolls 1 > that needed to secure a hit has instead achieved a Near Miss vs a LC. The Near Miss is resolved as a hull hit (regardless of the TH DR) vs it, using only half the bomb's Final TK# (FRD). The use of Napalm (17.4) vs a LC/its-PRC is NA.

12.67 COLLATERAL ATTACKS: Collateral Attacks vs LC PRC applies in the normal manner except as stated otherwise. See also 12.111, 12.123 and 12.13.

12.671 NON-ORDNANCE DIRECT FIRE: When a LC is attacked as an armored target by a non-ordnance Direct Fire attack (12.61), the only PRC aboard that LC which are Vulnerable to the resulting Collateral Attack are its Inherent crew (which receives a +2 CE DRM) and all Guns (12.675)/non-AFV-wrecks/unarmored-vehicles (and their PRC) *[EXC: a Gun being Animal-Packed]* whose Target Size is 0/-1/-2. When a LC is attacked as an unarmored target by non-ordnance Direct Fire whose Final IFT DR vs that LC is the applicable Vehicle Kill #, all PRC aboard that LC are Vulnerable to (but the LC's Inherent crew can claim no CE benefit vs) any resulting Collateral Attack *[EXC: each AFV (and its BU PRC)/wreck Passenger that is not treated as unarmored vs that attack is Vulnerable only if the attack was made by an Aerial MG (12.6711); see also 12.678]*.

12.6711 AERIAL MG vs AFV: When a LC carrying an AFV is attacked by an Aerial MG (12.66), that AFV (and its Vulnerable PRC, if the AFV is OT; 12.676) can be hit Collaterally. The MG's Original IFT DR, modified by -1 (or by -2 if the AFV is OT), is applied as a Final TK DR vs the AFV.

12.6712 RESIDUAL FP & MINES: The Collateral effects of a Residual FP attack vs a LC are resolved as per 12.671 as if the attack were being made by non-ordnance Direct Fire. For A-B mines vs LC PRC see 14.53.

12.672 ORDNANCE/OBA HULL HIT: An ordnance/OBA hull hit on a LC (12.62-.63) can directly affect only the LC/its-Vulnerable-Passenger(s); i.e., its Inherent crew, despite being non-BU, is not considered Vulnerable to any Collateral Attack caused by that hit. *[EXC: An Aerial bomb Near Miss (12.66) vs a LC has no Collateral effect on its Passengers.]* If the non-Dud Final Effects DR of an ordnance/OBA hull hit *[EXC: Aerial bomb Near Miss]* on a LC is the Final TK# (12.62), all of its Vehicle and Infantry Stacks are Vulnerable to the resulting Collateral Attack *[EXC: see 12.678]*. The Collateral Attack is resolved on the IFT/pertinent-TK-Table using the original attack's Original Effects DR and the same non-CH (12.679) IFT-FP/Final-TK# as applicable to each Collateral target *[EXC: if the LC is treated as an armored target by that hull hit, its IFT FP and Final TK# are halved (FRU) for Collateral Attack purposes]*. Such a Collateral Attack vs a Passenger AFV is considered a hull hit on it and, if resulting from an OBA/Area-Target-Type HE attack, also uses the 46.54 OBA Vs. Vehicle DRM as applicable.

12.673 ORDNANCE/OBA TURRET HIT: An ordnance/OBA upper-superstructure hit on a LC itself (as opposed to a hit as per 12.65 on a Passenger vehicle, wreck or Gun) can collaterally affect only the LC's Inherent crew; its Passengers are not considered Vulnerable to such an attack. This Collateral Attack vs the Crew is resolved using the original attack's non-CH (12.679) IFT FP and Original Effects DR modified by the crew's CE DRM (if applicable). For the Collateral effects of a hit achieved as per 12.65 on a Passenger vehicle/Gun, see 12.675-.676.

12.674 RAMP: Vs the Collateral effects of a non-Aerial attack conducted as per 12.61/12.62 from within the VCA of a LC whose ramp is down, all of that LC's Vehicle and Infantry Stacks *[EXC: the BU PRC of Passenger AFV; all 5/8" counters beneath the topmost AFV (or AFV wreck) in the Vehicle Stack]* are considered Vulnerable as if that LC's front Target Facing were unarmored. No CE benefits ever apply to a thusly Vulnerable Collateral target *[EXC: the PRC of an AFV not normally allowed to be BU (e.g., a Carrier's Inherent HS or crew) may claim CE benefits vs such a Collateral Attack]*. Note, however, that a lowered ramp does not prevent the LC's Inherent Crew from claiming CE benefits. An ordnance attack must use the Vehicle Target Type (or a LATW TH Table) and achieve a hull hit in order to claim the Collateral benefits of a lowered ramp.

12.675 VS GUN: A Collateral Attack vs a Passenger Gun *[EXC: one hooked up to a vehicle]* is resolved as if the Gun were an unarmored vehicle *[EXC: an Immobilization result is treated as Gun Malfunction instead; a Gun being Animal-Packed is eliminated if its Mule is eliminated or Casualty-Reduced]*. A hit achieved as per 12.65 on a Passenger Gun is resolved Collaterally only vs its possessing Infantry-Passenger—or, if the Gun is hooked up, vs its towing vehicle (and its

Vulnerable PRC, if any; 12.676). If a hooked-up Gun is eliminated by a hit achieved as per 12.65, its towing vehicle is automatically immobilized (unless destroyed by that Collateral Attack. A Gun shield has no effect in a LC.

12.676 VS PASSENGER-VEHICLE PRC: The PRC of a vehicle aboard a LC are Vulnerable to each Collateral Attack their vehicle is subject to, provided they are not in an AFV *[EXC: OT AFV PRC are Vulnerable to an Aerial MG attack vs that AFV; see also 12.674]* and that Collateral Attack does not destroy their vehicle. A hit achieved as per 12.65 on a vehicle aboard a LC can be resolved Collaterally only vs that vehicle's Vulnerable PRC. The Vulnerable PRC of a vehicle aboard a LC never receives CE benefits *[EXC: OT AFV PRC attacked by an Aerial MG; see also 12.674].*

12.677 AFV/WRECK TEM: When subjected to a Collateral Attack, a LC's Infantry-Passenger(s) (only) may claim the TEM of any AFV or non-burning wreck aboard that LC, but only if that AFV/wreck is also subject to that Collateral Attack.

12.678 PP CAPACITY[40]: Whenever a LC with a PP capacity of 40 PP is attacked *[EXC: any attack that achieves an upper-superstructure hit as per 12.65, or that can claim the benefits of a down ramp as per 12.674]*, the resulting Collateral Attack (if any) is resolved only against the Vulnerable Passenger(s) chosen by Random Selection. Random Selection is used twice (by the LC's owner) once for the Infantry Stack and again for the Vehicle Stack. However, from the latter only one AFV or AFV wreck (plus any number of non-AFV/non-AFV-wrecks) can thusly be made Vulnerable to an ordnance attack that used the Vehicle Target Type (or a LATW TH Table); if Random Selection chooses two AFV/AFV-wrecks, the LC's owner must select one of them randomly. All Passengers not Vulnerable to the original attack (e.g., Small Arms vs Passenger AFV) are excluded from Random Selection.

12.679 CH: A CH vs a LC itself is resolved Collaterally as a non-CH; i.e., using its non-CH IFT-FP/TK# as otherwise applicable.

12.68 BLAZE: Whenever a LC is struck by an attack that inflicts two DP on it and whose Effects DR contains an Original colored dr of "1", that LC is set Ablaze *[EXC: occurs if the LC itself is already Ablaze, nor if that attack sinks the LC in deep water].* A LC cannot be set Ablaze in any other manner. A vehicle aboard a LC can be turned into a burning wreck in the normal manner for whatever type of attack strikes it. Whenever a LC or a Passenger vehicle/wreck aboard a LC becomes Ablaze, a Blaze counter is placed on that LC (and, for a Passenger vehicle/wreck set Ablaze while in a Cloaking Box, a "duplicate" Blaze counter is placed on that wreck). When placed on the LC, that Blaze is also marked with a Pin counter (which is removed at the end of the next CCPh). When a Passenger burning wreck is removed from its Cloaking Box and placed onboard on its LC, its "duplicate" Blaze counter is removed from the LC; if the latter is pinned, that Pin counter is placed on the wreck's Blaze—otherwise it is not marked with a Pin counter. Each unpinned Blaze on a LC reduces that LC's MP allotment by one and, in the AFPh of each Player Turn, inflicts one DP on it. For other Blaze effects see 12.43-.44 and 12.84. No Blaze aboard a non-immobilized, non-Beached LC has any smoke effect whatsoever; i.e., neither its Inherent, nor any Drifting, smoke is considered to exist. When a LC carrying any Blaze(s) becomes Beached/immobilized, or when the first Blaze appears on a Beached/immobilized LC, the Inherent-smoke effects of its Blaze(s) come into existence immediately (and any drifting smoke would appear in the following AFPh). Smoke drifting from > one Blaze aboard the same LC is indicated on the board by using one gray Smoke counter per hex.

EX: An LCM(3) carrying two unpinned Wreck Blazes has its MP allotment reduced by two and receives two DP in the AFPh of each Player Turn. If instead the LC itself were Ablaze and was also carrying one Wreck Blaze, the same effects would apply. However, if in either case the LC is neither Beached nor Immobilized, LOS to/through/within/out-of (and movement into) its hex is unaffected by those Blazes nor do they create any Drifting smoke.

12.69 ELIMINATION: A LC is destroyed when the total number of DP inflicted on it exceeds its DP Rating. If this occurs in deep water, the LC sinks—i.e., it and everything it is carrying are immediately eliminated. A LC destroyed in shallow water is flipped to its Wreck side; if un-Beached or Aground it is now considered to be Fast Aground (and thus Beached), and if Beached across a hexside the wreck remains thusly Beached.

12.691 PRC SURVIVAL: LC PRC can survive only if their LC is destroyed in shallow water, in which case normal Survival rules apply to the LC's Inherent crew *[EXC: the total Stun DRM (if any; 12.111) applies to its Survival DR].* LC Passengers do not roll for Survival when their LC is destroyed in shallow water. Instead, they remain LC Passengers and are subject to the normal Collateral effects (12.67-.678 as applicable) of the attack (if any) that destroyed their LC. Those not eliminated by Collateral Attack are placed atop the LC wreck, and therefore are treated just as if their LC were Beached but not destroyed *[EXC: all surviving vehicles (other than motorcycles) aboard that LC wreck are considered Bogged; all unpossessed SW aboard it are eliminated unless being carried by another Passenger vehicle].*

12.7 CC: CC attacks by/vs a LC/its-PRC are NA.

12.8 MISCELLANEOUS

12.81 HINDRANCE/TEM: Only a Beached LC can provide a +1 TEM/LOS-Hindrance, treating the LC as if it were an AFV. A Passenger vehicle aboard a LC provides no such Hindrance/TEM *[EXC: TEM as per 12.677].*

12.82 REMOVAL: The armament of a LC cannot be Removed (or Scrounged).

12.83 WRECK EQUIVALENCE: A LC wreck is considered equivalent to an undestroyed LC in all respects *[EXC: a LC wreck cannot be Inherently crewed (and thus is Immobile and cannot fire), nor can it be further destroyed in order to gain more VP; a LC wreck is always Beached (see also 13.4422); a non-burning LC wreck may be Scrounged as if it were an AFV wreck].*

EX: LC destroyed (but not sunk) while its ramp is down becomes a wrecked LC whose ramp is down. A LC destroyed (but not sunk) while its ramp is up becomes a wrecked LC whose ramp is up, but the ramp may still be lowered as per 12.41 to allow any Passenger aboard to unload. No enemy unit may enter a Location occupied by a wrecked LC. When a LC that is itself Ablaze becomes a wreck, that Blaze counter (in its present pinned or unpinned state: 12.68) remains on it. All Passengers aboard a LC wreck must still attempt to unload as soon as possible during a Seaborne Assault (14.231). These are just a few examples of LC wreck equivalency.

12.84 VP: Each LC eliminated is worth one VP plus a one-VP bonus for each of the following: one still-functioning MA weapon; being fully armored; its Inherent crew did not survive; each multiple of 50PP (FRU) in its Passenger capacity. No Casualty/Exit VP may be claimed for a LC (or for its PRC) that exits play carrying a Blaze counter(s).

EX: The maximum casualty VP value of an LCP(L) is 4. That of an LCVP is 5. And that of an LCT(4) is 15

13. BEACHES

13.1 BEACH-OCEAN BOARDS: 2 Ocean-Beach Overlays/boards are being designed for VSQL and will be available only in the Blood & Sand Module. These boards can be used for DYO beach invasion scenarios. No scenarios in Blood & Sand will use these boards. *These rules were imported from ASL but have been modified in order to coincide with the Original SL-GIA rulesets. Most of the rules here-in were designed for use with GI: Anvil of Victory in mind but can be further modified to work under Crescendo of Doom rules by ignoring sections which references GIA.*

13.2 BEACH ELEVATION & SLOPES: Non-Beach land hexes are referred to as *Hinterland* **hexes** when a BEACH-OCEAN board is in use. Each hexside common to both a Beach hex and a Hinterland hex is termed a **Beach-Hinterland** hexside. Each hexside common to both an OCEAN hex and a Beach hex is termed a **BEACH-OCEAN** hexside. SSR will define the Slope of the Beach as Slight, Moderate or Steep, which will affect LOS, MF/MP costs and TEM along/across BEACH-OCEAN/Beach-Hinterland hexsides and also determine the number of shallow-OCEAN hexes (13.4).

13.21 SLIGHT: A Slightly Sloped Beach hex is Level -1 terrain. However, its Beach-Hinterland hexsides do not form a Crest Line. Therefore, all LOS along/across, as well as all types of movement across, one such Beach-Hinterland hexside treats all Beach (and OCEAN; 13.4) hexes as being at Level 0—as do all activities possibly affected/prohibited by relative elevations.

13.22 MODERATE: A Moderately Sloped Beach hex is treated as per 13.21 *[EXC: all LOS along/across, as well as all types of movement across, one such Beach-Hinterland hexside treats all Beach and OCEAN hexes as Level 0 Deir (see North Africa Module Rule 187 For description of a Deir) hexes, with all Beach-Hinterland hexsides acting as the deir's Lip].*

13.23 STEEP: A Steeply Sloped Beach hex is Level -1 terrain, and each of its Beach-Hinterland hexsides is treated as a Crest Line joining Levels 0 and -1. Infantry in a Steeply Sloped Beach hex that contains one Beach-Hinterland hexside may gain Crest status as if they were in a gully, but only along the Beach-Hinterland hexside(s) of their hex; each of those Beach-Hinterland hexsides is treated as if it were a non-Depression hexside of that "gully" hex, and all standard Crest-status rules (AFV Crest COI 77.2, Infantry Crest GIA 151.1) apply unchanged *[EXC: such Crest Infantry may use any type of SW].*

13.24 CLIFFS: If a Beach-Hinterland hexside is defined as a cliff hexside, the Beach hex common to that hexside is treated as being at Level -1 for all purposes and normal cliff effects apply to it (as well as across that hexside).

13.3 SAND: Each Beach hex is Sand (as per North Africa Module) that is either Hard or Soft. A Beach hex is considered Hard Sand if it contains a Beach-OCEAN hexside and is not Steeply Sloped. in addition, all Beach hexes are Hard if EC currently are Wet, Mud or Snow. Hard Sand is treated as per rules in the North Africa Module but as if EC were Wet or Mud. All sand that is not Hard is considered Soft. Soft Sand also uses the rules of North Africa Module, but for the exceptions given therein for Wet or Mud EC, which are ignored. See also 13.32.

EX: Infantry expend two MF to enter Soft Sand or one MF to enter Hard Sand while a fully-tracked vehicle would expend three or two MP respectively. A -1 DRM applies to a Bog DR caused by Hard Sand. An ordnance or OBA attack vs an unarmored target in Hard Sand does not have its FP halved on the IFT. Emplacement and Foxhole TEM are not halved in Hard Sand.

13.31 SANDBARS: A Sand/Dune overlay that is partially or wholly surrounded by (i.e., that lies adjacent to) one OCEAN hex is considered the equivalent of a Beach overlay (a Dune would be considered Low, and its Dune Crest would still exist). However, in DYO scenarios the number of hexes comprising it does not change due to Tide (see 13.97).

13.32 SAND BOG: Rules from *North Africa 190.1-.311* applies for Bog purposes in sand *[EXC: no Sand Bog DR is required for being in a non-sand Open Ground hex Accessible to a Beach hex]*. See also 13.4223.

13.4 SHALLOW/DEEP WATER: An OCEAN hex is Level -1 Open Ground (but see also 13.21-.22), and is either Deep or Shallow water depending on the Beach's Slope and proximity. An OCEAN hex is shallow only if it is within three hexes of a Slightly Sloped Beach hex, or is within two hexes of a Moderately Sloped Beach hex, or is adjacent to a Steeply Sloped Beach hex *[EXC: see 13.43]*. A shallow-OCEAN hex is not a land hex, but is not considered a Water Obstacle to Infantry, cavalry, horses, vehicles *[EXC: boats and LC]*, rubble, and A-T mines (14.53). A deep OCEAN Location is a Water Obstacle.

13.401 WATERCRAFT & AMPHIBIANS: A Watercraft is defined as any LC, boat or amphibian. An amphibian is defined as any vehicle having a printed amphibious-MP script (ie 2 MP's identifying both Land/Water movement) *[EXC: a DD tank is an amphibian only while its screens are erect]*.

13.41 NON-BEACH SHORELINE: Each hexside common to both an OCEAN hex and a non-Beach land hex forms a Crest Line, and is referred to as either an OCEAN-Hinterland hexside.

13.42 WADING: The pertinent rules [GIA 168] for units allowed to move in water apply unchanged except as stated otherwise. A unit *[EXC: LC; boat; any PRC not in the act of (un)loading; see also 13.492]* that enters/occupies a shallow-OCEAN (including a Submerged-reef; 13.431) Location is said to be Wading. Wading—*not Fording*—rules apply in shallow-OCEAN.[30] A Wading unit is treated as being in a shallow stream (but not in a Depression) except as stated otherwise below.

13.421 INFANTRY/CAVALRY: HE (and DC) FP is halved vs Wading Infantry, Cavalry and horses, in addition to all other modifications of that FP *[EXC: CH]*. Wading Infantry/Cavalry may not form multi-hex FG, and their Small-Arms/LMG attacks are halved as Area Fire. (They also cannot conduct CC; 13.495.) A Wading SMC may neither direct nor modify any type of attack. Wading Infantry/Cavalry are immune to PIN, LLMC, and booby-trap attacks, and are not subject to Pin/Battle-Hardening results. Wading Infantry/Cavalry that suffer a break/Step-Reduction result for any reason always suffer a Casualty Reduction result instead. Broken Infantry may rout into a shallow-OCEAN Location only to avoid Failure-to-Rout elimination, or to load onto a LC/amphibian during a Seaborne Evacuation (14.41). If River heavy current (COD 126.3) is in effect in OCEAN hexes, Infantry/Cavalry cannot wade upriver. If Heavy Surf is in effect see 13.44, and see also 13.443, 13.445 and 13.447. For a Seaborne Assault/Evacuation see also 14.32.

13.4211 SW/GUNS: No SW/non-vehicular-Gun may be fired, (un)dismantled, (un)Packed or (un)Limbered by Infantry in a shallow-OCEAN Location *[EXC: such Infantry may fire LMG (as Area Fire; 13.421)]*. Each unpossessed SW/non-vehicular-Gun in a shallow-OCEAN Location is eliminated unless on some form of conveyance.

13.4212 CONCEALMENT GAIN: Infantry in shallow OCEAN during a daytime scenario may not make a Concealment dr (nor may any ⁵/₈" counter, since OCEAN is not Concealment Terrain). However, this does not prevent "?" gain at night as per SQL 49.3-.5.

13.422 VEHICLES: The COT of a shallow-OCEAN Location is one land (not amphibious) MP for a Wading vehicle that is Waterproofed (13.4221), or two land MP for a Wading vehicle that is not Waterproofed. A motorcycle being Ridden cannot enter a shallow-OCEAN Location. Watercraft does not expend an extra MP to cross a Beach-OCEAN (or OCEAN-Hinterland) hexside even if it is an all-water hexside. All ordnance TH attempts vs a Wading vehicle receive an extra Target-Based +2 TH DRM.

13.4221 WATERPROOFING: Amphibians are always considered Waterproofed *[EXC: a DD tank with dropped screens is considered Waterproofed only if it had entered play via a deep-OCEAN Location (even if in a LC) and with its screens erect]*. Other vehicles may be Waterproofed by SSR or by DYO purchase (13.94); note, however, that Waterproofing is irrelevant to boats and LC, since they can never be Wading vehicles. A Waterproofed vehicle is exempt from Swamping *[EXC: in Heavy Surf; 13.441]*, and is sometimes less prone to Bog when exiting a deep stream (re 157.5). The TCA of a turreted, non-amphibian Waterproofed AFV may be traversed neither into nor through, nor may its AAMG fire at a same, or lower-level

target within, that AFV's "rear" VCA.

13.4222 SWAMPING: As a non-Waterproofed Wading vehicle enters (which includes unloading into) a shallow-OCEAN Location, the opponent must make a Swamping DR (△). This DR is modified by a +DRM equal to twice the range from that vehicle to the nearest land hex if the Beach is Slightly Sloped, or to three times that range if the Beach is Moderately Sloped, or to six times that range if the Beach is Steeply Sloped. If the Swamping Final DR is 12 the vehicle immediately becomes immobilized; otherwise there is no effect. A separate Swamping DR must be made for each vehicle, even if using Platoon Movement.

13.4223 BOG: A Wading vehicle exiting a shallow-OCEAN Location is subject to Bog only if crossing an OCEAN-Hinterland hexside. See also 13.32.

13.43 REEFS: A reef can exist only by SSR or by DYO dr (13.91), and only in Ocean hexes. Regardless of whether a reef is Exposed (13.431) or not, all Ocean hexes on that overlay which lie between that reef and the shore are considered shallow, and the Heavy Surf effects given in 13.441-.447 will not apply in those hexes. An Alternate Hex Grain reef is always shaped like the Blast Area of a Barrage.

13.431 EXPOSED/SUBMERGED: A SSR will state that the reef is either Exposed or Submerged. Each Exposed-reef hex is considered a Level -1 Hammada (Hollow Legions/North Africa 186) land hex in which all rules for hammada apply unchanged *[EXC: Mud effects are NA; no Hammada Immobilization DR (HL/NA 186.31) is required of Watercraft in an Ocean hex adjacent to an Exposed-reef hex; see also 13.5]*. An Exposed-reef hex is considered part of an Island for Drift purposes (13.444), and is never a Hinterland hex. Each Submerged-reef hex is considered a shallow-Ocean hex, all the rules for which apply unchanged therein *[EXC: a LC may neither set up in nor enter a Submerged-reef hex, but may Beach across one of its hexsides]*.

13.44 HEAVY SURF: The following (13.441-.447) can apply only if Heavy Surf is specified by SSR, and only in Ocean hexes *[EXC: 13.441-.447 are NA in hexes between a reef and the shore (13.43), as indicated by the "?" wave symbol beside each of those rule #s]*. Surf has no game effect other than those listed in 13.441-.449.

13.441 SWAMPING: Each Watercraft that enters an Ocean Location and each Waterproofed Wading vehicle that enters (which includes one unloading into) a shallow-Ocean Location, risks being swamped. The opponent makes one Secret Swamping DR for that vehicle's entire MPh, plus a Secret dr, in the same manner as for a vehicle moving in mud *[EXC: no DR or dr is made for a LC whose Target Size is -3 or -4, nor for a LC/boat that un-Beached in that hex]*. If using Platoon Movement (HL/NA 181.22), one DR-and-dr is made for the entire platoon.

If the Original DR is a 12, one of the following occurs to the vehicle(s chosen by Random Selection if using Platoon Movement) in the eligible hex determined by the dr: if in deep Ocean it sinks with no survivors; however, if in shallow Ocean it becomes immobilized *[EXC: if a LC it becomes Fast Aground (12.211); if a boat, it sinks and its Passengers become Wading Infantry but all SW and Guns aboard it are lost]*.

A Swamping DR and dr are made in the same manner for each Watercraft that Drifts [COD 126] into any Ocean Location during its APh (i.e., Platoon Movement principles do not apply to APh Drift; 13.444).

A non-Waterproofed Wading vehicle that enters (which includes one unloading into) a shallow-Ocean Location is immediately immobilized (i.e., no 13.4222 DR is made).

13.442 (UN)BEACHING: Whenever a LC that is not Aground begins its MPh or APh in an Ocean Location that contains ≥ one Beach-able hexside, and whenever a LC enters such a Location during its MPh or APh, its owner must make an (un)Beaching DR (△) for it (even if it can/will not perform any other action in that phase). A separate DR is made for each LC even if using Platoon Movement. A +1 DRM applies if the LC's Inherent crew is Inexperienced (12.113), as does a +1 if the LC is adjacent to ≥ one Hinterland/Steeply-Sloped-Beach/non-Beach-Island hex, and a +1 for each other LC (and for each amphibian/non-Passenger wreck) in the same Ocean Location with the LC. A Final (un)Beaching DR of ≤ 8 has no adverse effect on the LC; if that DR is a 9 or 10 the LC immediately becomes TI (unless devoid of PRC) and if presently Beached it becomes un-Beached (or if presently un-Beached it becomes Beached); if that DR is ≥ 11 the LC immediately Broaches (13.4421).

13.4421 EFFECTS: A TI LC (including its PRC) may conduct no activity for the remainder of the Player Turn *[EXC: if the LC becomes a wreck while TI, its TI status is lost and 12.69-.691 (or Broaching effects, below) will apply]*.

A LC that becomes un-Beached by an (un)Beaching DR is considered Non-Stopped (12.2; no Start MP is expended) using forward movement *[EXC: if its ramp is presently down (12.41), it instead becomes Fast Aground if in shallow Ocean or sinks (12.69) if in deep Ocean]*, and is also immediately subject to attack/damage by any Tetrahedrons/A-B-mines (14.51/14.53) present in the hex. If the LC is immobilized and has no lowered ramp, it automatically becomes Stopped when its TI counter is removed.

A LC that becomes Beached by an (un)Beaching DR does so across a randomly determined Beach-able hexside of its hex, after resolving the effects of any Tetrahedrons/A-B-mines in its hex.

A LC that Broaches becomes (as per the preceding paragraph), or remains, Beached. It is then flipped to its Wreck side, its Inherent crew must roll for Survival, and its Vehicle and Infantry Stacks (12.151) are subjected to MC as if (and with all the same consequences as being) attacked by Bombardment in an Open Ground land hex *[EXC: no DRM of any kind apply to such MC, but 12.13 does]*. All surviving Passengers remain aboard the Broached LC wreck (and, during a Seaborne Assault, would still be required to unload as per 14.231). For Defensive First Fire purposes, a LC that makes a Final (un)Beaching DR of ≥ 9 is considered to have expended its entire printed MP allotment (or all of its still-available MP—whichever is less) in its present hex.

13.4422 LC WRECK: A LC wreck is subject to (un)Beaching DR only if it is Beached across a hexside but is not Broached, and receives an extra +2 DRM. A LC wreck that makes an un-Beaching Final DR of 9 or 10 either becomes Fast Aground in (i.e., not across a hexside of) its present shallow-Ocean hex or sinks as per 12.69 in its present deep-Ocean hex. Otherwise, a LC wreck is considered equivalent to a LC for (un)Beaching DR purposes and effects.

13.4423 BOATS: All boats are subject to (un)Beaching DR (and their effects) just as if they were LC *[EXC: the +1 Inexperienced-crew DRM applies if the boat's Passengers are Untrained; the +2 wrecked-LC DRM applies if the boat contains no Personnel Passenger; a Broach result eliminates the boat and all its contents, except in shallow-Ocean in which case its Personnel Passengers (only) become Wading Infantry]*.

13.443 (UN)LOADING: The normally applicable MF/MP costs for (un)loading Passengers (including vehicles/Guns) from/onto Watercraft in an Ocean hex (or across a Beach-Ocean, or Ocean-Hinterland, hexside) are doubled (FRU after all doubling).

13.444 CURRENT & DRIFT: During their ATTACKER APh (only), each amphibian/swimmer in a deep-Ocean hex, and each boat/LC in any Ocean hex, Drifts (maintaining the direction of its VCA) one hex toward the nearest (in hexes) land hex that is not part of an Island *[EXC: no Watercraft/swimmer Drifts thusly if it is presently Aground and/or adjacent to a land/reef hex, or if during the current Player Turn it has exited a land hex or (un)Beached]*. If two such eligible land hexes exist, one of them is chosen randomly. Each unit Drifts individually; i.e., not as part of a platoon. For Drowning purposes only, swimmers are considered to be in a Heavy current. Current has no other effect in Ocean hexes *[EXC: for Drowning purposes only, a swimmer in a deep-lake hex, as well as one in a deep-Ocean hex in which Heavy Surf is not in effect, is considered to be in a Slow current]*.

13.445 ATTACKS: All attacks resolved on the IFT *[EXC: OBA; attacks by FB/DB; A-B mines (14.53); Collateral Attacks; for Beach-Obstacle elimination purposes (14.56)]* made from/vs an Ocean Location receive an extra +1 TH (if ordnance) or IFT (if non-ordnance) DRM. A Fire Lane ends in the first Ocean Location it enters. A dr 2 sniper attack vs a target in an Ocean Location has no effect. A -1 drm applies to each Tetrahedron (14.51), and a +1 drm applies to each A-B mine, attack dr vs a LC.

13.446 AGROUND: LC cannot run Aground (i.e., no 12.21 DR are made).

13.447 WADING INFANTRY/CAVALRY: All cavalry, horses, and unbroken Infantry, in shallow Ocean are considered CX unless aboard a Watercraft. They become CX immediately upon their entry into (or rally in) shallow Ocean, and that status cannot be removed until the unit is on land or aboard a Watercraft (or LC wreck), at which time it becomes eligible to lose its CX status in the normal manner. [Note again that 13.441-.447 apply only if Heavy Surf is in effect in the unit's Location; 13.43.]

13.448 WIND FORCE: When Heavy Surf is in effect, Heavy Winds exist for the entire scenario; i.e., no DYO Wind Force DR is made, and a Wind Change dr of ≥ 5 has no effect.

13.449 NAVAL OBA: Heavy Surf does not add a +1 IFT DRM to Naval OBA (14.6) attacks, but does add a +1 drm to its Accuracy dr (14.64).

13.45 BORE SIGHTING: An OCEAN hex may be Bore Sighted only if it is shallow.

13.46 OVERLAY ENTRY: A Watercraft *[EXC: a DD tank expending amphibious MP]* entering an OCEAN hex from offboard is considered (for LOS and TH purposes only) to have expended four MP to enter that hex, thus in most cases negating TH Cases J, J1, J2, O, AND P. in addition, a Gun on land may claim a -1 Target Acquisition the first time it fires in the game, provided it uses the Vehicle Target Type to fire at a Watercraft *[EXC: a DD tank expending amphibious MP]* in an OCEAN hex during that Watercraft's initial MPh (or DFPh) of the game and voluntarily relinquishes its HIP and "?" (if any) to make that shot.[31]

13.47 SMOKE: SMOKE from grenades/ordnance/dispensers may not be fired/placed into/in, and OBA SMOKE has no effect in, an OCEAN Location *[EXC: Drifting SMOKE]*.

13.48 SUNK BOATS: Does not apply in shallow OCEAN. The former Passengers of a boat (not LC) that is sunk while Beached across a shallow-OCEAN hexside (or while un-Beached in a shallow-OCEAN hex) become Wading Infantry in that shallow-OCEAN hex. All SW and Guns aboard a boat (not LC) that sinks in shallow OCEAN are eliminated.

13.49 OCEAN MISCELLANEOUS

13.491 BERSERK: Units in OCEAN hexes are not considered Known for berserk creation/charge purposes. in addition, when a unit on land suffers a berserk result but the closest (to it) Known enemy unit on land is farther from it than the closest (to it) enemy unit in an OCEAN hex in its LOS, the result is changed to Battle Hardening instead.

13.492 PARATROOPS & GLIDERS: A 5/8" parachute that lands in shallow OCEAN is considered to be Wading and must take a NMC, but with a +DRM as per 13.4222 (as if it were a Wading vehicle) and an extra +1 DRM if Heavy Surf is in effect; 13.421 applies to the NMC DR result. A ^{1}/2#q parachute that lands in shallow OCEAN is eliminated. For the purposes of COD 140.6, a glider that lands in shallow OCEAN is treated as if landing in a fordable river *[EXC: an extra +1 drm applies to its Crash dr if Heavy Surf is in effect in its hex]*, and all Wading effects apply to its Passengers.

13.493 RUBBLE: A shallow-OCEAN Location containing a Rubble counter is considered a rubble land—not an OCEAN—Location.

13.494 (this section N/A)

13.495 CC: CC attacks are NA in OCEAN Locations.

13.5 FORTIFICATIONS: The only Fortifications that may be set up in OCEAN/reef hexes are Beach Obstacles (14.5). HL/NA 190.42 applies for Beach hexes. in all Beach/OCEAN/reef hexes, Tunnels are NA.

13.6 SEAWALLS: If a SSR states that a seawall[32] exists, all Beach-Hinterland hexsides designated by that SSR become seawall hexsides as well. in addition, the seawall will be defined as being either High or Low. A seawall never exists along a Steeply Sloped beach or along an OCEAN-Hinterland hexside.

13.61 HIGH: A high seawall is equivalent to a one-level cliff rising from the level -1 Beach; no wall rules apply. However, no cave may have a high-seawall hexside as its CA Hexside (11.1), and only Commandos may Climb a high seawall. See also 13.24.

13.62 LOW: A low seawall is treated as a normal wall except as stated otherwise.

13.621 MOVEMENT: Infantry/Cavalry crossing a low seawall from its Hinterland to its Beach side does not expend the one MF normally required for crossing a wall. Vehicles may cross a low seawall only as per 13.624/13.625.

13.622 LOS: A unit entrenched in a Beach hex has no LOS across/along a low-seawall hexside/hexspine to any Level 0 Hinterland Location that lies beyond the Hinterland hex common to that hexside/hexspine. Otherwise, a low-seawall hexside does not block LOS, regardless of the beach's Slope; however, a LOS traced across any (but along no) low-sea-wall hexside to or from (i.e., not "to/from") a Level 0 Hinterland Location is subject to a +1 LOS Hindrance if that hexside is common to neither the hex that LOS originates in nor the hex it ends in. The maximum possible low-seawall Hindrance is +1, regardless of the number of such hexsides the LOS touches.

EX: See the 13.23 illustration; assume a low seawall along all Beach-Hinterland hexsides and no PTO Terrain. Regardless of whether the beach is Slightly or Moderately Sloped, all Japanese units have a LOS to all U.S. units. However, the 4-4-8's LOS to (and hence its attacks vs) LC "H", the 7-6-8, 5-5-8 and 4-5-8, receives a +1 LOS Hindrance. If any Japanese squad(s) use(s) Small Arms vs the 6-6-8, the latter cannot claim a low-seawall Hindrance. If the 6-6-8 had moved adjacent to the non-entrenched 4-4-7, the latter could claim Wall Advantage (but not wall TEM; 13.623) vs a Direct Fire attack. If the three U.S. squads in Beach hexes were entrenched, regardless of whether or not the Japanese squads were entrenched, the only LOS that could exist between any of those opposing squads would be between the 4-4-7 and the 6-6-8, and between the 4-4-7 and the 5-5-8 (and those LOS would he unhindered). An unhindered LOS exists from hex E10 to G10, and likewise from hex 433 (or 420) to 446, even if the units therein were entrenched.

13.623 TEM: A non-entrenched unit in a Hinterland hex that contains a low-seawall hexside may claim Wall Advantage over that hexside in the normal manner, but cannot claim its TEM/HD benefits, *[EXC: it may claim the +1 wall TEM vs Indirect as if the seawall were a normal wall]*. A low seawall is not considered a wall for the purpose of firing HEAT.

13.624 BREACH: A Mobile dozer may Breach a low-seawall hexside just as if it were Clearing a roadblock. A low-seawall hexside may also be Breached by a HE

Concentration from OBA of ≥ 100mm, or by a DC Set in the Beach hex as a declared Breaching attempt vs a specific seawall hexside of that hex. If the FFE achieves an Original KIA DR in either hex common to that hexside, one low-seawall hexside of that hex is Breached (use Random Selection if > one exists in the hex). If the DC achieves a Final KIA DR, the specified low-seawall hexside is Breached. A low-seawall hexside may also be Breached by a British AVRE as per 13.62 and British Vehicle Note 37, but only if the AVRE is in a Beach hex. A Breached seawall is treated as Open Ground for movement/Manhandling purposes *[EXC: it still negates FFMO in the Beach hex]*, but otherwise retains low-seawall characteristics.

13.625 FASCINE: A Churchill AVRE (see British Vehicle Note AA in CoD) in a Beach hex may place a fascine "against" a low-seawall hexside (of its hex) that is within its VCA, provided the AVRE is Mobile but Stopped. Such placement costs the AVRE one Delay MP. Thereafter, any Mobile fully-tracked vehicle may cross that hexside at a cost of 25% of its printed MP allotment plus the COT of the hex entered.

13.7 PIERS: All rules for non-pontoon bridges apply to piers except as stated otherwise. Piers may be "wooden" or "stone", as indicated by each Pier counter's brown and gray sides. Each Pier counter must be set up in a water or Beach hex. A unit on a pier is placed above the Pier counter, and occupies a separate, Level 0 pier Location. A pier Location is considered a paved road for setup purposes (see also 13.73).

13.71 LOS: Vs a LOS that begins and ends in non-adjacent water/Beach Locations, each intervening stone-pier hex is an Inherent-Terrain obstacle while each intervening wooden-pier hex is an Inherent-Terrain +1 LOS Hindrance. A pier hex is neither a Hindrance nor an obstacle to LOS that begins at Level 0 and ends in a water/Beach Location (or vice-versa) *[EXC: if that water/Beach Location is adjacent to a pier hex crossed/touched by that LOS, that LOS is blocked or Hindered as if beginning and ending in non-adjacent water/Beach Locations]*. A pier hex has no effect on LOS that neither begins nor ends in a water/Beach Location.

13.711 LARGE VEHICLES: If the LOS to/from a vehicle whose Target Size is -2, -3 or -4 would be blocked by an intervening stone pier, the unit/target to which that LOS is being drawn is treated as being directly behind a stone wall and receives the TEM/HD-status thereof even if not adjacent to that pier. Such TEM is not cumulative with any other +TEM *[EXC: mud/deep-snow TEM]*. See also 13.72.

13.72 TEM: A pier Location is Open Ground with a 0 TEM. A unit on a pier can claim Height Advantage (COI 77, 99.1) only vs an adjacent, in-LOS unit in a water/Beach Location *[EXC: not if that adjacent unit is a vehicle whose Target Size is -2, -3 or -4]*. See also 13.711.

13.73 ENTRY: Infantry changing elevation while entering/exiting a pier Location expend MF as if crossing a hill Crest Line *[EXC: COD 126.8 applies if diving/jumping into deep water;]*. No Gun, vehicle or Horse counter may be moved to/from a pier Location directly from/into a water or Beach hex. Only Infantry/boats may set-up/enter beneath a wooden pier *[EXC: Infantry are NA in deep water]*. No unit may set-up/enter beneath a stone pier.

13.731 (UN)LOADING LC/AMPHIBIAN: A Mobile LC may expend a Stop MP in a water Location adjacent to a pier, even if using forward movement. Likewise, a Mobile amphibian may expend a Stop MP in a water/Beach Location adjacent to a pier. in either case, the Stopped vehicle may (un)load Personnel (only) directly onto/off-of that pier, at a cost of 50% (FRU) of their respective MF/MP allotments *[EXC: 100%, if Heavy Surf effects apply in that water Location; 13.443]*. No extra cost applies for COT or for (un)loading to/from a different elevation, nor does such (un)loading lower the LC's ramp. The ability to (un)load in this manner does not itself prevent an amphibian from instead (un)loading Passengers into/from its own shallow water hex, but would prevent a LC from doing so because it would be Mobile but not Beached.

13.732 (UN)LOADING BOAT: Only Personnel may (un)load from/onto a boat directly to/from a pier Location, and only if that boat is Beached across a hexside of a pier hex. A boat may Beach across a hexside of a pier hex in the normal manner, but cannot do so while beneath any Pier counter (nor may it un-Beach from a pier to directly beneath a Pier counter).

13.733 SW: Infantry/Personnel entering/exiting a pier hex may carry their possessed SW unless otherwise unable to.

13.734 DRIFT: An LC/amphibian does not Drift if it would Drift into a pier hex. A boat/swimmer does not Drift if it would Drift into a stone-pier hex.

13.8 MISCELLANEOUS

13.81 BYPASS: Bypass along a Beach/OCEAN overlay hexside is NA.

13.82 CORAL SOIL: If a SSR states that Coral Soil is in effect, all Entrenching Attempts receive a +2 DRM and Mud effects are NA.

13.83 STRAYING: During a night scenario, a unit that begins its MPh with a LOS to a Beach/OCEAN Location is exempt from Straying in that MPh. A Straying unit that gains a LOS to a Beach/OCEAN Location during a daytime/night scenario immediately becomes TI.

13.84 VP: Casualty VP are amassed for units/equipment wrecked/eliminated by Swamping (13.4222; 13.441) or Broaching (13.442).

13.9 DYO: To set up a DYO scenario using any Beach/OCEAN overlay(s), carry out the following procedures in the order given:

13.91 REEF: If the scenario will be Allied-vs-Japanese, set in 1943-44, and will use the OCEAN overlay(s) to represent Ocean, a dr is made after setting up all mapboard(s) and Beach overlay(s) but before placing the OCEAN overlay(s) and purchasing units. If this Final dr is 5, a reef exists. A -1 drm applies if the amphibious side is wholly non-American. Unless the players agree otherwise, the reef will comprise the (Alternate) Hex Grain that lies adjacent to the (Alternate) Hex Grain of Ocean hexes forming the amphibious side's entry/exit area.

13.92 BEACH SLOPE: Make a dr to determine the beach's Slope. A -1 drm applies if a reef exists. If the Final dr is 2, the Slope is Slight; if 3 or 4 it is Moderate; if 5 it is Steep.

13.93 BEACH WIDTH: Determine the High- and Low-Tide width of the beach (i.e., its minimum and maximum possible width in Beach hexes between the Hinterland and OCEAN). If the beach is Slightly or Moderately Sloped, make a DR: the colored dr divided by two (if it is Slightly Sloped) or by three (if it is Moderately Sloped) equals (FRU) its High-Tide width; the white dr divided by the same number (i.e., by two or three; FRU) and then added to the High-Tide width equals the beach's Low-Tide width. If the beach is Steeply Sloped, its High- and Low-Tide widths are always one and two hexes respectively.

13.94 PURCHASES: Both sides make all DYO purchases. The BPV cost to Waterproof a vehicle is "2".

13.95 DEFENDER SETUP: Set up all OCEAN overlays. If they represent Ocean, set them up so that the beach is at its Low-Tide width; otherwise, set them up to show the beach is at its High-Tide width. The player judged to be defending the beach then sets up; see also 13.5 and 14.2-.21. Any OCEAN hex that is/could-become (13.97) shallow may be Bore Sighted, provided Bore Sighting is otherwise allowed.

13.96 Underwater Demolition Team (UDT): After resolving all Recon dr (if any, 13.961), all Underwater Demolition Team (14.561) dr are made and resolved.

13.961 RECON: A SSR or DYO purchase may give the Scenario Attacker a single Recon dr after the Scenario Defender has set up, but prior to his own setup. The Final dr is the number of hexes (chosen by the Scenario Attacker), which the Scenario Defender must reveal units in, if in fact he had set up in them. Hidden units are placed in their setup hexes concealed. Concealed units in these hexes lose their concealed status (the Scenario Attacker also receives Right of Inspection of those units) regardless of the presence of a LOS to any enemy units. If any hidden Fortifications are in the hex, they must be revealed and placed on the board *[EXC: the type/strength of mines is not revealed, nor are Fortified Buildings/tunnels]*. The Recon dr is modified by the following cumulative drm based on the Scenario Attacker's Majority Squad Type.

British, Partisans, Russians, Japanese	+1
Stealthy	+1
Germans, U.S.	0
All other nationalities	-1
Lax	-1

13.97 TIDE: The player conducting the amphibious operation (or judged not to be defending the beach) declares the Tide to be either High or Low *[EXC: if the OCEAN overlay represents lake or river terrain, assume the "Tide" to be High]*. This, in conjunction with 13.93, determines the beach's actual width for the scenario. Note that this may alter the setup terrain of (and thus might eliminate; 14.56) some/all Beach Obstacles. in addition, if a reef exists, a High Tide makes it Submerged while a Low Tide makes it Exposed. All Bore Sighting in what are now deep OCEAN hexes is lost. All A-T mines now in shallow OCEAN become A-B mines.

13.98 SURF: If Heavy Surf is not already stated as being in effect in a SSR, make a dr to determine if it is in effect. If the dr is a 6, it is; otherwise it is not.

13.99 ATTACKER SETUP: The other player sets up, all Bombardments (if any) are conducted (see also 14.56/14.7), and play is ready to begin.

14. SEABOURNE ASSAULT

14.1 If a scenario is defined by SSR as being a Seaborne Assault or a Seaborne Evacuation, certain special rules are in effect:

14.2 ASSAULT: The following (14.21-.262) apply only in Seaborne Assault scenarios (see also 14.3):

14.21 SETUP RESTRICTIONS: Nothing in the OB of the side defending the beach may be set up in Beach/OCEAN Locations [EXC: Beach Obstacles; 14.5]. A Watercraft with a Passenger PP capacity may enter play only if 2/3 [EXC: 1/2, if the

Watercraft is carrying a vehicle/non-dm-Gun] of that capacity is taken up by Passenger unit(s)/equipment.

EX: A LC or LVT with a 39PP Passenger capacity may enter play only if its still-usable capacity has been reduced by Passenger units/equiprnent to 13PP.

14.22 *UNDERWATER DEMOLITION TEAMS:* The U.S. side may be able to use UDT in an attempt to eliminate Beach Obstacles; see 14.561.

14.23 WATERCRAFT PRC: The Passenger(s) of each LC may be set up and kept in a Cloaking Box as per E5.123 until that LC Beaches, at which time all of its Passengers are placed onboard stacked on that LC counter. The same principles apply to the Passenger(s) (as defined in 12.12 for these purposes) of an amphibian, except that they are revealed when their amphibian enters a non-reef, non-Beach land hex. When a vehicle/Gun aboard a LC/amphibian is in a Cloaking Box, treat the top of that Box as the front of the LC/amphibian for (V)CA purposes (12.121). A SW/Gun must be, and remain, dm (if possible) while aboard a LC/amphibian during a Seaborne Assault. When a hidden Passenger aboard a Watercraft is eliminated, the opponent is informed only of the Casualty VP he has thereby amassed, and only if scenario Victory Conditions require him to amass Casualty VP.

14.231 UNLOADING: Once a LC has Beached (even involuntarily), all of its Passengers must attempt to unload as soon as possible. Whenever an immobilized LC/amphibian is in a Location in which any of its Passengers can unload, all who possibly can must attempt to unload as soon as possible unless doing so would leave them with no path of enterable hexes to a Hinterland hex.

14.232 RECALL: Each LC/amphibian with a Passenger capacity is immediately Recalled when no Passenger unit capable of unloading by itself is aboard it. All Passenger units aboard each ATTACKER amphibian that begins the MPh in a Hinterland hex must take one combined TC at some point (of the owning player's choice) in that MPh [EXC: they must take it while in a Hinterland hex]. This Passenger TC is taken even if the amphibian is TI/Shocked/Stunned etc.; and is resolved as a single NTC () for all Passengers aboard that amphibian, using the highest current Morale Level among them (and basing that Morale Level on their Good Order side unless all of those Passengers are broken). If that NTC is failed, the amphibian is immediately Recalled. The Recall of an already-immobilized LC/amphibian has no effect [EXC: the Inherent crew of such an armored amphibian must Abandon (and cannot re-enter) it; D5.341]. Recall as per 14.232 can apply to an amphibian carrying one Passenger unit even if it is unarmored (and thus is not an AFV; D1.2), or is BU, and/or has an Inherent Driver.

14.233 ABANDONING AMPHIBIAN: No amphibian Inherent crew may voluntarily Abandon its vehicle. Whenever an amphibian with a Passenger capacity is immobilized by an ESB (D2.5) or Mechanical Reliability (D2.51) DR, its crew must Abandon it as soon as possible (and 14.231 will apply to its Passengers); after all PRC have left it, that Abandoned amphibian is flipped over to its Wreck side (but will not count as eliminated for VP purposes).

14.234 "ASAP": Within all otherwise-applicable restrictions (e.g., those conferred by the presence of a Recall/TI/Shock counter), PRC forced to Abandon/unload "as soon as possible" (even as per D5.341) may do so at any time during, but must do so before the end of, the current or a subsequent friendly MPh (whichever is possible first) [EXC: if broken at the start of a RtPh, they would have to Abandon/unload in that RtPh]. Units need not unload as a single stack just to comply with the "ASAP" requirement, but while still aboard the vehicle they and it are prohibited from performing (or even attempting) any activity [EXC: Manhandling] that would (or possibly could) delay/prevent them from debarking at the required time.

14.24 BATTLEFIELD INTEGRITY: Battlefield Integrity (A16.) never applies to the Assaulting side.

14.25 FG: No unit of the Assaulting side may form/participate-in a multi-hex FG while in a Beach hex. See also 13.421.

14.26 DYO: The side conducting the Assault receives free LC; see 12.9.

14.261 SNIPERS: in a DYO scenario, 1 Sniper may be purchased for every multiple of 5 Full squads in its order of battle. in scenarios in which players intend to use snipers as an optional rule, the sniper ratio is 1 Sniper for every multiple of 7 Full Squads scenarios and then consult the following chart to determine their class:

Sniper Determination Chart (PV 14.261)	
Dice	Sniper
8-12	-1
5-9	-2
3-4	-3
2	-4

14.262 AIR SUPPORT: Air Support purchased by the Assaulting side has its BPV halved (FRU), and will arrive at the start of Turn 1 in the form of three FB with bombs. However, all FB are Recalled at the instant the first friendly Watercraft enters (or Beaches adjacent to) any non-Island land hex.

14.3 ASSAULT/EVACUATION: The following (14.31-.34) apply only in scenarios defined as Seaborne Assaults or Seaborne Evacuations (see also 14.4):

14.31 BU/CE AMPHIBIAN: If an armored amphibian with a Passenger capacity is marked with neither a BU nor a CE counter, its Inherent crew is considered to be CE and all Passengers aboard it are considered BU through its armored Target Facing(s). If an armored amphibian with a Passenger capacity is marked with a CE counter, its Inherent crew and all Passengers are considered CE through their/the-amphibian's armored Target Facing(s). No Passenger aboard an amphibian may be CE or claim any CE benefit while the crew is BU.

14.311 DEPLOYING: During offboard setup, each squad of the Assaulting side may Deploy freely (i.e., without the need of a leader/TC and regardless of any normal Deployment limits) in order to enter play in Watercraft. Good Order squads of the Evacuating side may Deploy freely as they (or one of their HS) load onto a Watercraft.

14.32 INFANTRY/CAVALRY: Each non-prisoner Infantry/Cavalry unit of the Assaulting/Evacuating side is considered Fanatic while in a Beach Location or Wading in shallow OCEAN. If entering a Beach Location from a Hinterland hex, or unloading from a vehicle into a Beach/shallow-OCEAN Location, it instantly becomes Fanatic, prior to Defensive First Fire vs it. If wishing to advance into a Hinterland hex from a Beach Location in order to CC an AFV, it need not take a PTC since it is Fanatic when required to take it. A unit already Fanatic receives no further benefit. A unit that receives a "Fanatic" Heat of Battle result while in a Beach Location is marked with a Fanatic counter and remains Fanatic as per A15.3. While in a Beach Location, Infantry/Cavalry of the Assaulting/Evacuating side treat LLMC as LLTC, treat Heat of Battle "Berserk" and "Surrender" results as "Battle Hardening" results, and if subjected to a break/Step-Reduction result [EXC: one caused by a Wreck Check, Para-landing, OVR Prevention MC, or Panji MC] always suffer a Casualty Reduction result instead.

14.33 RECALL: No vehicle of the Assaulting/Evacuating side suffers Recall due to MA disablement. A Recall due to attack effects (not due to 14.232) suffered by the Inherent crew of an AFV of the Assaulting/Evacuating side is always treated as a Stun result only (i.e., no Recall ensues from that attack); however, the +1 DRM effects of all Stun results vs an AFV crew of the Assaulting/Evacuating side are cumulative.

14.34 AIR SUPPORT: Aircraft of the Assaulting/Evacuating side treat all friendly units in Beach/OCEAN Locations as hidden for all Sighting-TC and Mistaken-Attack purposes. The opponent may not place, prior to rolling for Accuracy, a Mistaken-Attack FFE in such a way that its Blast Area includes one Beach/OCEAN Location occupied by any unit(s) of the Assaulting/Evacuating side. If all units of the Assaulting/Evacuating side are in Beach/OCEAN Locations, then no Mistaken Attack occurs.

14.4 EVACUATION: The following (14.41-.42) apply only in Seaborne Evacuation scenarios (see also 14.3):

14.41 ROUT ONTO LC/AMPHIBIAN: Infantry of the Evacuating side may rout onto LC/amphibians as if those LC/amphibians were buildings, ignoring those that are Immobile/burning and/or lack the PP capacity necessary to allow the routing unit to load onto it. Such an Infantry unit has only four MF if it will load during that RtPh, and must expend the applicable loading cost as if it were the MPh.

14.42 VP: Broken/Recalled units, and heroes, can count for Exit VP purposes in a Seaborne Evacuation scenario (a hero would be worth one VP). See also 12.84.

14.5 BEACH OBSTACLES: Mines, Tetrahedrons, Wire and Panjis are referred to collectively as Beach Obstacles.

14.501 HIP: Normal HIP and HIP-loss procedures apply to Beach Obstacles.

14.51 TETRAHEDRONS: Tetrahedrons[34] may be set up only in Beach/Ocean/reef hexes (but see also 14.56), with no more than one such counter per hex. A tetrahedron is neither an obstacle nor a Hindrance, but its Location is considered non-Open Ground. The vehicular COT of a Location containing a Tetrahedron counter is increased by one [EXC: this increase is NA for boats (other than LC), motorcycles and wagons]. There is no extra MF cost to enter a tetrahedron's Location. The reverse side of each Tetrahedron counter is called a

Tetrahedron-Wire counter, and is used to show the presence of both Fortification types in the same Location; see 14.52. Tetrahedrons may attack only LC. Whenever a LC enters, or changes VCA, or becomes (un)Beached as per 13.442, in a tetrahedron-Ocean hex the tetrahedron's owner makes a dr (one dr per VCA hexspine changed); a -1 drm applies if Heavy Surf effects (besides just Heavy Wind; 13.448) apply in that hex (13.445). If the Final dr is a 2, the LC is destroyed but no Wreck Blaze or Collateral Attack ensues. If the Final dr is 1, the LC is considered to have detonated an A-B mine (14.53) Inherent to the tetrahedron (no B28.51 dr is made), and the LC (and its PRC) are affected as per 14.53. A Final dr of ≥ 3 has no effect. If a LC enters a hex that contains both tetrahedrons and actual (i.e., non-Inherent) A-B mines, their owner may roll for either attack first; if wire is also present (14.52), its effects can come into play only after rolling for those other attacks. A 5/8" parachute that lands in a tetrahedron's Location must take a NMC as per E9.42, and receives an extra +1 DRM due to the tetrahedron. A glider that lands in a tetrahedron's Location must add an extra +1 drm to its Crash dr.

14.52 WIRE: Wire may be set up in Beach hexes that contain no Panjis, and in OCEAN/reef hexes that contain tetrahedrons. The presence of wire in a shallow-OCEAN Location adds a +1 DRM to a LC's Aground (12.21) DR unless the LC's Target Size is -3 or -4. If the LC (even if its Target Size is -3 or -4) does not run ground due to that DR, it eliminates the Wire counter if the colored dr of that DR was a "1". Amphibians treat wire in OCEAN hexes the same as wire on land. A boat (E5.) entering a wire-OCEAN hex sinks; all SW and Guns aboard it are eliminated, and its Personnel become Wading Infantry above that Wire counter [EXC: wire in an OCEAN Location has no effect on boats and their contents if Heavy Surf effects (besides just Heavy Wind; 13.448) apply in that Location]. A Wire Exit dr (B26.4) made by a unit in an OCEAN Location receives a +1 drm.

14.53 A-T/A-B MINES: A-T mines may be set up in Beach/OCEAN/reef hexes. Those that begin play in shallow OCEAN are termed A-B (anti-boat) mines. A-B mines are treated exactly like A-T mines (136.73-76) except as stated otherwise. A +1 drm applies to the attack DR vs. an LC if Heavy Surf effects (besides just Heavy Wind; 13.448) apply in that hex (13.445). The attack is resolved vs the LC with an Effects DR on the 36 FP column of the IFT; the Original DR subtracted from "13" equals the number of DP inflicted on the LC. 12.68 applies for Blaze purposes. All PRC (selected as per 12.678, if applicable) of a LC affected by an A-B mine are subject to a 16 FP Collateral Attack [EXC: a Passenger AFV (and its PRC) can be Vulnerable only if its lowest hull AF is 0, in which case it is treated as an unarmored vehicle]. Use the 16 FP column for each Passenger vehicle/Gun thusly attacked. Mud/Deep-Snow do not affect A-B mine attacks. A-B mines can also attack Wading vehicles, but are resolved as normal A-T mine attacks.

14.54 A-P MINES: A-P mines may be set up in Soft-Sand Beach hexes, and in Hard-Sand Beach hexes that are adjacent to one Hinterland hex, provided (in both cases) that those hexes contain no Panjis. EC are ignored when determining whether a Beach hex is Hard or Soft Sand for A-P mine setup purposes.

14.55 PANJIS: Panjis may be set up in Soft-Sand Beach hexes, and in Hard-Sand Beach hexes that are adjacent to one Hinterland hex, provided (in both cases) that those hexes contain neither wire nor mines. EC are ignored when determining whether a Beach hex is Hard or Soft Sand for panji setup purposes.

14.56 ELIMINATION: Each Beach Obstacle that begins play in deep OCEAN, or in a type of hex it would not have been allowed to set up in, is immediately eliminated; see 14.58 [EXC: A-B mines that begin play in Beach hexes become A-T mines, and A-T mines that begin play in shallow OCEAN become A-B mines]. During play, a Tetrahedron (or Tetrahedron-Wire) counter can be eliminated only by a DC as per B26.51 or by an Aerial-bomb/FFE-Concentration HE attack as per B26.52, while other Beach Obstacles can be eliminated in the normal manner for each type. Wire eliminated by vehicular entry (14.52; 15.23; B26.53) does not eliminate any tetrahedron in that Location; flip the Tetrahedron-Wire counter over to show just the tetrahedron. The applicable FP of HE attacks vs OCEAN hexes [EXC: DC Placed/Set as per B26.51] is halved (in addition to all other modifications) for Beach-Obstacle elimination purposes. Vs Bombardment (C1.8; 14.7), all Beach Obstacles can be affected in the normal manner for that type of Fortification (tetrahedrons are affected as if they were wire).

14.561 UNDERWATER DEMOLITION TEAMS (UDT): The use of UDT is allowed only by SSR or by DYO purchase, and only by the U.S. side in a Seaborne Assault vs the Japanese set in/after 1944. UDT capability is given in the form of a number of dr which are resolved after all pregame setup (and Recon dr, if any; E1.23), but prior to both Bombardment (if any) and the start of play. For each UDT dr allowed, the U.S. player makes the dr and points out to his opponent a number of Beach/OCEAN hexes equal to that Original dr. All Beach Obstacles in those hexes are immediately eliminated; the U.S. player is then informed of what type(s) of Beach Obstacle were eliminated, but is not told of their strength, number or exact location.

14.57 BEACHING: All DR/dr required by the presence of any Beach Obstacle(s) in an OCEAN hex that is entered by a LC/boat (or within which a LC changes its VCA) must be made prior to the Beaching declaration (if any) for that LC/boat.

14.58 DYO: Each Tetrahedron counter has a BPV of "3". The BPV of other Beach Obstacles remains unchanged (hence a Tetrahedron-and-Wire counter's BPV is "8"). The U.S. (only) player may purchase as many UDT dr as he wishes, at a BPV of "5" each [EXC: purchase is NA both prior to 1944 and vs (versus) other than Japanese; 14.561]. UDT Expenditures are recorded as Fortifications on the DYO Purchase Roster. Note that in DYO scenarios the terrain of Beach Obstacle hexes may change from OCEAN to Beach or vice-versa (due to the amphibious player's declaration of the tide as High or Low; 13.97); see 14.56.

14.6 NAVAL OBA (NOBA): NOBA is a specialized type of OBA, and comes in various Caliber sizes of l00mm-400mm.[35] All rules pertaining to OBA, radios and Observers apply to NOBA except as stated otherwise. NOBA may be used only by the U.S., British, Russians, and Japanese, and only if so allowed by SSR or by DYO purchase. However, the Japanese/Russian side may use NOBA only if directed by an Observation Plane or Shipboard Observer (14.68). NOBA uses green OBA counters. Neither Plentiful nor Scarce-Ammunition rules ever apply to NOBA, nor may it use Pre-Registered Fire.

NOBA AVAILABILITY CHART			
NATION: Japanese	Russian	British	U.S.
DATES: 1937-42	1939-45	l940-45	8/42-45
DR: 2 / **BPV:** 400+ / 358 (1, !)	350+ / 316 (1, 2, !)	400+ / 358 (3, !)	400+ / 358 (3, !)
3 350+ / 316 (1, !)	100+ / 105 (1, *)	350+ / 316 (3, !)	350+ / 316 (3, !)
4 200+ / 190 (1, !)	150+ / 158 (1, !)	100+ / 105 (3, *)	200+ / 190 (3, !)
5 150+ / 158 (1, !)	120+ / 126 (1, *)	200+ / 190 (3, !)	120+ / 130 (3, W, *)
6 120+ / 126 (1, *)	120+ / 126 (1, *)	100+ / 105 (3, *)	150+ / 162 (3, W, !)
7 120+ / 126 (1, *)	150+ / 158 (1, !)	120+ / 126 (3, *)	120+ / 130 (3, W, *)
8 150+ / 158 (1, !)	120+ / 126 (1, *)	120+ / 126 (3, *)	150+ / 162 (3, W, !)
9 150+ / 158 (1, !)	100+ / 105 (1, *)	100+ / 105 (3, *)	120+ / 130 (3, W, *)
10 120+ / 126 (1, *)	100+ / 105 (1, *)	150+ / 158 (3, !)	200+ / 190 (3, !)
11 200+ / 190 (1, !)	100+ / 105 (1, *)	150+ / 158 (3, !)	300+ / 274 (3, !)
12 400+ / 358 (1, !)	100+ / 105 (1, *)	400+ / 358 (3, !)	400+ / 358 (3, !)
MAX. BPV: 358	316	358	358

1 Must also purchase Observation Plane or Shipboard Observer (14.68).
2 If scenario is set in/after 1943, treat as "150+" (BPV: 158, !)
3 Comes With SFCP (14.61) [EXC: must purchase Observation Plane (E7.6) or Shipboard Observer (14.68) if scenario is set in 1940 (for British NOBA) or prior to 11/42 (for U.S. NOBA)].
W Can fire WP but not Smoke.
* Can fire IR (E1.93).
! Can fire IR as per 14.672.

14.61 SFCP: The only onboard Observer allowed for a NOBA battery is a Shore Fire-Control Party (SFCP). However, a SFCP may be used only with a U.S./British NOBA battery,[36] and is always represented by a Chinese, Italian or Axis Minor (owner's choice) 2-2-7 infantry-crew counter. Such a crew is assumed to be the same nationality as its NOBA battery, and to have all normal infantry-crew and Observer qualities except as stated otherwise. A SFCP may possess no SW/Gun [EXC: its Inherent radio; 14.611] nor may it become an Inherent crew. A SFCP is considered Inexperienced Personnel [EXC: it does not lower the B# of its Inherent radio]. A SFCP that sets up onboard may use HIP as if it were manning a field phone. The Casualty VP value of a SFCP is "2".

14.611 RADIO: A SFCP is assumed to possess a three-PP Inherent radio (thus equaling eight PP for Passenger PP purposes), and may neither Transfer nor

drop/share possession of that radio; however, if the SFCP is captured/eliminated, its Inherent radio is immediately eliminated. A SFCP's Inherent radio (referred to hereafter as a SFCP radio) has a Contact value of "8" and a breakdown value of "X12" (PV.7 can apply). If the Radio Contact/Maintenance Original DR for a SFCP radio is a 12, the SFCP itself is eliminated (but no VP are awarded). A SFCP radio cannot be used while the SFCP is a Passenger. No Unarmed unit may be re-armed as a SFCP. A normal radio/field-phone cannot make Radio Contact with a NOBA battery [EXC: the radio of an Observer Plane assigned to that battery], nor may a SFCP radio make Contact with a regular OBA battery or with a NOBA battery other than its own."37"

14.62 NOBA LOF: Each NOBA battery uses a NOBA LOF which is traced from the center dot of a predesignated Ocean hex through/beyond the center dot of the hex containing that battery's onboard AR/SR/FFE counter (or, in certain cases mentioned below, to any given hex [es] within its FFE's Blast Area). The Ocean hex is secretly recorded after all setup but prior to the start of play, and must have two hexsides along the edge of the playing area and be twelve hexes away from all Hinterland hexes. Otherwise, the NOBA battery's owner may choose its Ocean hex, provided that no SSR lists a specific hex for that battery and that each NOBA battery uses a different Ocean hex.

14.63 BATTERY ACCESS: Each NOBA battery, regardless of nationality, uses a Draw Pile of five black and two red chits. Whenever a chit in the Draw Pile of a NOBA battery would otherwise be permanently removed (C1.211), it is instead mixed back into the Pile; thus no chit is permanently removed from a NOBA Draw Pile. Drawing two red chits does not cause the permanent loss of NOBA Battery Access.[38]

14.64 ACCURACY: NOBA, regardless of its nationality, is Accurate on a Final dr of 2. A +1 drm applies to its Accuracy dr if Heavy Surf is in effect (13.449).

14.65 BLAST AREA: The Blast Area of a NOBA Concentration contains nine hexes instead of the usual seven.[39] The two extra hexes are determined with the NOBA LOF drawn through the center dot of its FFE counter's hex, and comprise the last hex that LOF crosses as it enters, and the first hex it crosses as it exits the "normal" seven-hex Blast Area of that Concentration. The FFE, if HE, is resolved vs these two hexes with halved FP (or, if the battery is 250mm, on the 16 FP column with the Heavy-Payload DRM halved [FRD]), barring a CH.

14.66 REVERSE SLOPES: If a NOBA LOF being traced to any hex within its FFE Blast Area crosses, in the preceding hex adjacent to that hex, a hill whose Base/Crest Level (whichever is higher) is > that of the hex to which that NOBA LOF is being traced, the latter hex is considered a Reverse Slope hex of that battery. Reverse Slope hex is immune to attack (including WP placement) by the NOBA battery using that NOBA LOF[40] [EXC: an upper building level in a Reverse Slope hex is immune to that battery's attack only if it is lower than the hex that makes the building hex a Reverse Slope hex]. Only hill terrain itself—not woods, buildings [EXC: see 14.661], orchards, etc.—can cause Reverse Slopes. Irrespective of its Observer's LOS, if a NOBA battery's AR/SR is placed (or lands, after all adjustment) in what would be a Reverse Slope hex of that battery if that AR/SR were a FFE, or if its FFE Blast Area lies completely in Reverse Slope hexes of that battery, that AR/SR/FFE counter is immediately removed, that Fire Mission (if any) is Cancelled and that battery's (and Observer's) OBA actions for that phase are ended [EXC: the preceding penalties do not apply if that AR/SR is in a hex with (or that FFE Blast Area contains) an upper building level that is not immune to that battery's NOBA FFE and is in its Observer's LOS, or if that battery is firing an IR].

14.661 BUILDINGS: A Multi-Story Building that is also multi-hex can create Reverse Slope hexes as if the building were a hill of the same full-level height.

14.67 FIRE MISSIONS: The only Fire Missions usable by a NOBA battery regardless of its nationality/Caliber-Size are HE Concentrations and IR (for the latter see also 14.672). WP Concentrations may also be fired by U.S. (only) NOBA batteries of 120mm-150mm. NOBA may not use other types of Fire Missions (including rockets).

14.671 NON-CONTINUATION: A NOBA FFE may neither be Converted to a SR nor replaced by a new Fire Mission's FFE. Instead, if that battery's owner wishes it to begin another Fire Mission, he must place a new AR, etc., (even if the target hex remains the same).

14.672 IR: A NOBA battery of 150mm with Radio Contact and Battery Access may fire an IR in its PFPh/DFPh even during/at-the-start-of-a HE/WP Fire Mission. It first places the IR and then proceeds with its HE/WP Fire Mission in the normal manner.[41]

14.68 SHIPBOARD OBSERVER: A non-Aerial Offboard Observer used with a NOBA battery is referred to as a Shipboard Observer. A Shipboard Observer is assumed to be at Level 1 in his battery's Ocean hex, and both grants a -1 drm to that

battery's Accuracy dr and halves (FRU) its Extent-of-Error dr. However, a Shipboard Observer may place an AR only in/adjacent-to a Known (to him) enemy ground unit, and must make an extra chit draw if a Known (to him) friendly ground unit is within six hexes of that AR.42 A Shipboard Observer who has successfully placed an AR prior to beginning a new Fire Mission may dispense with the SR and instead immediately place a FFE (for which Accuracy/Extent-of-Error are then determined, etc). Otherwise, a Shipboard Observer is treated as a normal non-Aerial Offboard Observer.

14.69 DYO: A DR made on the OBA availability Chart prohibits rolling on the NOBA availability Chart (and vice-versa). The U.S. side may purchase NOBA only for scenarios set in/after 8/42. Purchase dates for British NOBA are 1940-45, for Japanese NOBA are 1937-42, and for Russians are 1939-45. Each U.S./British NOBA battery comes with a SFCP (in lieu of a leader and radio, and at no extra BPV cost) unless an Observation Plane or Shipboard Observer is purchased for it. However, an Observation Plane or Shipboard Observer must be purchased for each British NOBA battery in a 1940 scenario, for each U.S. NOBA battery in a scenario set prior to 11/42, and for every Japanese/Russian NOBA battery regardless of the scenario's date. The BPV of a Shipboard Observer is "20". Contrary to E7.6, no Air Support Availability DR is required in order to purchase an Observation Plane for a NOBA battery, and the U.S./British/Russian side may purchase a NOBA Observation Plane(s) regardless of the scenario's date (1.6621 applies for the Japanese).

14.7 NAVAL BOMBARDMENT: The following rules, which may be invoked only via SSR or DYO-purchase, simulate the artillery softening-up process conducted prior to a set-piece attack.

14.71 *AREA:* Bombardment begins after setup (inclusive of units set up offboard) but prior to the start of play. Bombardment potentially affects all the hexes of an entire mapboard (hexrows A-GG) or two adjacent half-boards (hexrows A-Q/Q-GG) at the firer's option, including all friendly units present in that designated area. The firer makes six dr, modifying the last three dr by +6. Each of these Final dr represent a numerical grid coordinate of the Bombardment area which is immune to its effects. Should any of these Final dr result in the same number or exceed 10, the total are spared the effects of the Bombardment is correspondingly less. A Final dr of 10 also spares all hexes of the Bombardment that have a coordinate of 0.

EX: The German player is entitled to a pre-game Bombardment and rolls 3, 1, 3, 4 (+6 = 10), 5 (+6 = 11), and 2 (+6 = 8). All hexes of the Bombardment area with a numerical coordinate of 0, 1, 3, 8, and 10 are spared the effects of Bombardment.

14.72 *EFFECTS:* All non-Aerial Personnel units and Vulnerable PRC not in the spared hexes must take a 2MC prior to the start of play (thus passing the 2MC has no effect on HIP/"?" status). However, the TEM of their Location is added to their MC DR as a negative DRM (e.g., -4: entrenchment; +1: woods [Air Bursts]; -3: entrenchment in woods; 0: Open Ground). A -2 DRM applies if in Marsh. Otherwise, all rules for, and consequences of, a MC apply in the normal manner. Hidden/concealed Personnel that break or become pinned must be completely revealed regardless of enemy LOS (thus eliminating a Dummy stack). All Horses, Motorcycles, and Boats not in the spared hexes are eliminated; any passengers must bail out, and then must take the Bombardment 2MC. CH are not applicable during Bombardment.

14.721 Equipment/Vehicles (and SW/Guns, in some instances) not in the spared hexes must take a NMC [EXC: Horses, Motorcycles, and Boats do not take MC; they are affected as per 1.82]. Unarmored vehicles have a Morale Level of 6, Guns and SW have a Morale Level of 7, all OT AFV and those CT AFV with all AF ≤ 4 have a Morale Level of 8, and all other CT AFV have a Morale Level of 9. There is no Pin, or reversed TEM (1.82), effect. Each vehicle must take its MC before its occupants do. A possessed SW/Gun takes the NMC only if its possessor breaks/suffers-Casualty-Reduction; if unpossessed when attack by the Bombardment, it must always take the NMC. Failing a MC by one immobilizes vehicles, and malfunctions SW and non-vehicular ordnance. Failing the MC by two eliminates it, and a destroyed vehicle's passengers/crew must roll for Survival (those that survive are not attacked again by the Bombardment). A vehicle failing a MC by ≥ three results in a burning wreck.

14.722 *TERRAIN:* Each building/bridge hex not in the spared hexes must take a NMC before any of its occupants do. Wooden buildings/bridges (and pontoon bridges) have a Morale Level of 8, and stone buildings/bridges have a Morale Level of 9. Completely Fortified building hexes [EXC: Factory] may increase their Morale Level by one. A "brown" Bunker has a Morale Level of 10; a "grey" pillbox has a Morale Level of 11. One level of the building (from top down) is turned to rubble for every multiple of one by which the MC is failed (a bridge would be treated as a Single Story House). All occupants of a rubble level are eliminated. Wire and Roadblock counters, as well as all minefields, have a Morale Level of 9, and are eliminated if they fail their NMC; if hidden, they take their NMC and any eliminations are noted on

the owner's side record (without telling his opponent what was eliminated or where such occured). If a unit in a sangar is eliminated, so is that sangar.

14.723 *FIRE/SHELLHOLES:* Whenever any Bombardment MC DR is an Original 12, make a subsequent dr. If this dr is ≤ 4 a Shellhole counter is placed at the Base Level of that hex, provided such placement is otherwise legal; if the dr is ≥ 3 a Flame is placed in the same manner; if the dr is 3 or 4, place one of each. Bombardment may place no more than one of each type per hex

14.724 *REVERSE SLOPES:* A land Location is immune to Naval Bombardment if it would be considered a Reverse Slope (14.66) Location of all enemy NOBA batteries if every Ocean hex in play contained the Shipboard Observer of a different enemy NOBA battery. If such an immune Location is also the Base Level of a cave's Entrance Hex, that cave is also immune to Naval Bombardment.

14.73 *RESOLUTION:* Each Naval Bombardment MC DR receives a +2 DRM. Each hidden Fortification counter [EXC: mines and caves] subjected to a Naval Bombardment MC is revealed (regardless of LOS) unless eliminated.

14.74 DYO: Naval Bombardment may be purchased only if one OCEAN overlay treated as Ocean is in play, and only if no normal Bombardment is purchased by that side. The BPV of each Naval Bombardment is "250".

15. BULLDOZERS

15.1 TYPES: The game system includes three types of bulldozers (which are referred to collectively as dozers): unarmored, armored, and tankdozers. The following both add new rules for dozers and summarize the existing rules for their use.

15.11 UNARMORED: An unarmored bulldozer is a fully tracked, unarmed vehicle with an Inherent Driver (and thus no CS#). Its weight is "9.5". It has a MP allotment of "8" and Low Ground Pressure (and the Bog DRM for ground specified as "soft, mud, or snow-covered" [D8.21] does not apply). Its minimum road cost is one MP (i.e., it may not use the 1/2-MP road rate, as signified by "Road Rate NA" on the counter); and it may not attempt ESB. It has no Passenger PP capacity, but may carry one SMC (and the 2PP he possesses) as a Rider. Its Target Size is "0"; however, as signified by "+2 for HH" on the counter, a special +2 TH DRM applies to the calculation of a Direct-Fire front-hull hit vs it unless the firer is at least one full level higher than it (see also 15.13). in addition, as signified by "+2 vs non-ord DirF in VCA" on the counter, it receives a +2 IFT DRM vs non-ordnance Direct Fire [EXC: FT; DC; MOL] attacks vs it which emanate from another hex within its VCA [EXC: this DRM is NA if the firer is at least one full level higher than the dozer]. The Casualty VP value of an unarmored bulldozer is "2".

15.111 ATTACKS vs: Any Small-Arms/MG attack [EXC: one that also uses MOL] IFT DR vs a non-Abandoned unarmored bulldozer which would result in that dozer's elimination kills its Inherent Driver (leaving the dozer Abandoned) instead, if that DR's Original colored dr is ? 3. A "1" sniper dr attack vs an unarmored bulldozer kills its Inherent Driver instead of immobilizing it [EXC: if the dozer is already Abandoned, it is immobilized (and thus becomes a wreck; D8.1)]. See also 15.27.

15.12 ARMORED: An armored non-tank bulldozer is an OT AFV with a weight of "10" and a Casualty VP value of "4". Otherwise it is treated as per 15.11. Despite being OT, an armored non-tank bulldozer cannot be CE or claim any CE benefit -as signified by "BU" on the counter.

15.13 TANKDOZER: The only two tankdozers are the U.S. M4 Tankdozer and the British Sherman Dozer(a); see U.S.Vehicle Note 18 and British Vehicle Note 23 respectively. A tankdozer may not fire [EXC: CC] during a Player Turn in which it wishes to doze, nor may it or its crew attempt to place smoke in that Player Turn while dozing. The Casualty VP value of a tankdozer is one > its otherwise-applicable value.

15.2 CAPABILITES: A Mobile dozer may: Clear Flames, roadblocks and rubble (with a -5 DRM; B24.7), and accumulate Labor Status DRM (B24.8); Breach bocage (B9.541); enter dense jungle or bamboo without using a road/TB, creating a TB as it does so (2.21; 3.1); make a Bog DR for dense jungle or bamboo without the extra +2 DRM if dozing (2.211; 3.1); enter (thereby Collapsing) a hut without taking the Collapse PTC (5.4); Breach a Drained/In-Season paddy Bank hexside (8.8); enter a panji Location across one of that Panji counter's Covered hexsides without becoming immobilized (9.42); change position from beneath a Panji counter to above it or vice-versa (9.5); exit a panji Location across one of that Panji counter's Covered hexsides from beneath that Panji counter (9.6); change a Covered hexside of a Panji counter to a non-Covered hexside (9.73-.731); and Breach a low seawall (13.624). A dozer engaged in Clearance (inclusive of the entire time it is covered with a Labor Status counter) is considered to be dozing. Dozer Labor Status remains in effect until the declared Clearance attempt is successful, the dozer leaves its present Location, or it

attempts some other type of Clearance/dozing. Dozing may be claimed for more than one activity at a time only as per 15.26, and may never be declared/conducted while using Reverse movement.

15.21 vs PILLBOX/ENTRENCHMENT/TUNNEL: A Mobile dozer may use Clearance (B24.7) to eliminate a Pillbox/Entrenchment counter or a friendly (or Recovered enemy; B8.61) tunnel entrance/exit that is not in a building Location. To do so, the dozer's owner must first declare the attempt vs one such "target" during the dozer's MPh while it is in the same hex with that "target". The dozer must then expend a Stop MP in that hex (if non-Stopped), and is marked with a TI counter to show that it can conduct no other activity during that Player Turn while Mobile. If it is still Mobile at the end of that Player Turn's CCPh and no Melee exists in its hex, its owner makes the Clearance DR. The only DRM possible are: +x for Labor Status; +y for leadership; -5 for the dozer; a +DRM equal to the +TEM of the terrain in that hex (e.g., +2 for dense jungle; 0 for Open Ground or kunai), excluding any TEM caused by the presence of shellholes, a bridge, Fortification(s), and/or Artificial Terrain (B.9); and a -1 for each 25% (FRD) of its printed MP allotment which the dozer has spent in Delay that MPh while thusly TI. A successful Clearance DR successfully eliminates that "target". All of an eliminated entrenchment's/pillbox's contents, plus all tunnel entrances/exits in its Location, are eliminated as well [EXC: if a tunnel with another existing exit connects to that pillbox and is usable by its occupants, they (excluding Guns) are placed offboard (in the proper Cloaking Box if applicable) beneath a Sewer counter; in their next APh they must exit the tunnel as per B8.61].

15.22 vs CAVE: A dozer may eliminate a cave as per 15.21 [EXC: elimination of an Upper-Cliff-cave (11.113) is NA], with the following changes to the procedure. Vs a cave in a non-Depression hex, the Clearance attempt may be declared (and made) only while the dozer is ADJACENT (11.6) to the cave in its Entrance Hex and has the cave within its VCA. If that cave and ADJACENT dozer are not at the same elevation, the dozer must also be in Crest status (F5.42) when it declares—as well as when it makes—its Clearance attempt; vehicle Crest status is permitted for Cave Clearance purposes even if the Depression is not a wadi. All of an eliminated cave's contents, but no tunnel entrances/exits in its (or the dozer's) hex, are eliminated [EXC: Infantry (and their possessed SW/Guns) in an eliminated cave may survive if their owner can (and does) immediately move them into an Accessible cave/Cave-Complex (note that a Gun cannot enter a cave directly from another cave; 11.76)].

15.23 vs WIRE: A dozer may remove wire. However, if prior to making the Bog DR its owner declared it to be dozing, it automatically eliminates the wire unless it bogs.

15.24 TRAILBREAKS: Any (even an unarmored) non-TI Mobile dozer may create a TB and need not be declared to be dozing to do so.

15.25 vs SINGLE-STORY HOUSE: Any non-TI Mobile dozer may attempt to rubble a Single-Story House that contains no (other) friendly unit. It does so by declaring the attempt and making a Minimum Move to enter (or change VCA in) the Single-Story House. Bog due to its entry/VCA-change can occur only on an Original Bog DR of 12. The Original Bog DR also serves as an Original Clearance DR, to which the only applicable DRM are the -5 for a dozer, any accumulated Labor Status, and a +3 if the Single-Story House is stone. If the Final Clearance DR is ≤ 2 and the dozer remains Mobile after all Defensive First Fire vs it, the Single-Story House is rubbled. Such rubbling has no effect on any occupant(s) of the Single-Story House. A dozer is immune to falling into a cellar while attempting to rubble a Single-Story House.

15.26 OVR: A Mobile non-tank bulldozer that is not TI may conduct an OVR in the normal manner, using a total of two FP, and is considered to be dozing as it does so. A tankdozer may conduct the same type of OVR if it fires none of its armament as it does so. Dozing may be declared/conducted for more than one activity at a time only if one of those activities is this type of OVR; and each such activity requires its own Effects DR, implemented separately.

15.261 vs SANGAR: A non-tank bulldozer OVRs a sangar as per F8.41 as if it were an AFV. 15.26 still applies.

15.27 CAPTURE: All non-tank bulldozers are treated as unarmed-and-unarmored vehicles for capture and captured-use purposes, and are re-manned. If no enemy Personnel are in a Location with a non-tank dozer, it may be captured automatically by any Infantry unit in the same Location at the end of a CCPh. Dozing abilities are not affected by captured use [EXC: a tankdozer manned only by one SMC cannot declare dozing].

15.3 DYO: Any side making the appropriate availability DR (H1.4) may purchase one unarmored bulldozer, the BPV of which is "20". The RF of an unarmored bulldozer is 1.6 pre-1940, 1.5 for 1940, and 1.4 [EXC: 1.5 for partisans, Chinese and Allied/Axis Minors] for 1941-45. However, the U.S./British side may deduct .1 for a scenario set in 1943 and .2 for one set in 1944-45 [EXC: no deduction is made for a

scenario set in Burma]. Only the U.S./British side may purchase any armored non-tank bulldozer(s), the BPV of which is "30". The British may do so (RF: 1.3) only for a scenario that is set in/after 6/44 and is not vs Japanese/their-allies. The U.S. may do so only for a scenario that is set in/after 7/44; RF is 1.4 vs Japanese and 1.5 otherwise.

16. TROPICAL CLIMATIC CONDITIONS

16.1 TROPICAL SCENARIO: A Tropical scenario is defined as one in which PTO Terrain is in effect.

16.2 WEATHER: The following chart is used in lieu of the E3 Temperate Weather Chart to determine the weather of a Tropical DYO scenario.

TROPICAL WEATHER CHART	
Final DR	**Weather**
≤ 2	Heavy Rain (a, b) & Mud
3	Heavy Rain (a, c)
4	Mud & Overcast
5	Mud
6	Overcast (d)
7	Overcast
8	Clear & Gusty
≥ 9	Clear
DRM:	
-2	June-Sept.scenario in Burma/India
+2	Nov-April scenario in Burma/India
+3	8-9/42, or 2-8/44, scenario using U.S.M.C.
a:	The scenario begins with Heavy Rain (i.e., rain of increased intensity as per E3.51) already falling, and such rain lasts throughout the scenario.
b:	All streams, ponds and rivers are flooded [EXC: rivers are not flooded if Overlay Be7 is in use; 13.11], and all river current is heavy.
c:	All streams are deep, and all river current is moderate.
d:	If rain starts, it does so as Heavy Rain that will last throughout the scenario.

16.3 EC: The following chart is used to determine the EC of a Tropical DYO scenario.

TROPICAL EC CHART 16.3		
Final dr	**EC**	**EC DRM/drm**
≤ 1	Mud	-3
2-3	Wet	-2
4-5	Moist	-1
6-7	Moderate	-0
≥ 8	Dry	+1
drm:		
-2	June-Sept.scenario in Burma/India	
+2	Nov-April scenario in Burma/India	
+3	8-9/42 or 2-8/44 scenario using U.S.M.C.	

16.4 WIND: The following table is used in lieu of the Wind Force Table to determine the initial Wind Force of a Tropical DYO scenario.

TROPICAL WIND FORCE TABLE (a)		
Final dr	**Wind Force**	**Result**
≤ 3	Mild Breeze	Wind Direction DRM and Dispersed SMOKE
4	Heavy Wind	Automatic Spread Downwind; None Upwind
≥ 5	No Wind	No Wind Direction DRM
drm:		
-1	If the scenario uses any OCEAN overlay(s) treated as Ocean	
a:	NA if Heavy Surf is in effect (13.448).	

16.41 DIRECTION: Players designing DYO scenarios using any OCEAN overlay(s) treated as Ocean might wish to note that the wind (if any) generally tends to blow from offshore during the day and from inland at night.

17. THE U.S. MARINE CORPS & EARLY U.S. ARMY

17.1 U.S. MARINE CORPS: U.S. Marine MMC are Elite, normally have an ELR of 5 and do not Disrupt. Neither Heat of Battle nor ELR Replacement can transform a U.S.M.C. MMC into a U.S. Army MMC or vice-versa (hence a U.S.M.C. squad whose ELR is 4 still becomes its two broken HS if it fails a MC by > its ELR).

17.11 SQUADS: The 4-5-8 and 5-5-8 represent the early-war U.S.M.C. rifle and BAR squad respectively. The 4-5-8 also represents Marine Defense Battalion

personnel. The 6-6-8 represents the mid-war, and the 7-6-8 the late-war, U.S.M.C. rifle squad. A Good Order 7-6-8 may Deploy freely during setup (i.e., the normal 10% limit does not apply), or in its RPh by passing a NMC, regardless (in both cases) of the presence of a leader.[43] Contrary to, the broken-side Morale Level of U.S.M.C. squads is not one > that on their Good Order side.

17.111 The 5-5-8, if given Assault Fire capability by SSR or by DYO purchase, represents the U.S.M.C. paratrooper (Paramarine) squad. If given Assault Fire and Stealthy capabilities, the 5-5-8 represents the U.S.M.C. Raider squad.

17.12 HS: The 3-4-8 is the HS of both the 6-6-8 and 7-6-8 squad (since, due to their usage dates, these squads will not appear together in a scenario; 17.15).

17.13 CREWS & SMC: The 2-2-8 is the U.S.M.C. infantry-crew. U.S.M.C. vehicle-crews [EXC: LC crews; 12.112] and SMC are represented by the pertinent U.S. Army counters, to which they are equivalent in all respects.

17.14 RE-ARMED: Regardless of the scenario date, any Unarmed U.S.M.C. squad/HS that becomes re-armed is exchanged for a U.S.M.C. 4-5-8 squad or 2-4-8 HS respectively.

17.15 DYO: U.S.M.C. Personnel may appear only in scenarios vs the Japanese, and are restricted to the following usage dates [EXC: 17.14]:

U.S.M.C. Personnel Type	**Usage Dates**	**Counter**
2-3-8 Infantry Crew	12/41-45	
4-5-8 Defense Battalion Rifle Squad	5-11/42 12/41-43	
5-5-8 BAR Squad	5-11/42	
7-4-8 Paramarine/Raider squad	8/42-43	
6-6-8 Rifle Squad	12/42-3/44	
7-6-8 Rifle Squad	4/44-45	

17.151 The following apply to the U.S.M.C. side for DYO purposes. The respective overall ratio of U.S.M.C. 4-5-8 rifle squads to 5-5-8 BAR squads must be 3:1 at the time of purchase. 4-5-8s may be purchased using a BPV of "13", in which case they are considered Defense Battalion squads. 5-5-8s may be purchased using a BPV of "14", in which case they are considered Paramarine squads; or using a BPV of "15", in which case they are considered Raider squads. (The BPV of Defense Battalion, Paramarine and Raider HS remain unchanged.) For SW allotment purposes the Equivalency of Defense Battalion, and of Paramarine/Raider, squads must be calculated separately from all other squad types in the U.S.OB—as indicated by their separate SW Allotment Charts. The U.S.M.C. Rifle/BAR Squad SW Allotment Chart allots FT and DC to 7-6-8 squads regardless of whether or not they are Assault Engineers. The U.S.M.C. Leadership Generation factor is "4.5".

17.152 LVT: If the U.S. side is making a Seaborne Assault (14.1) and the Majority Squad Type (E.4) of its OB is U.S.M.C., it may add to its OB as many LVT2/LVT(A)2/LVT4 as it wishes (assuming that, as per the scenario date and the H1.4 availability DR, they are available for use), and pays no purchase points for them. However, see also 14.21.

17.2 EARLY U.S. ARMY: in U.S.-vs-Japanese scenarios set prior to 6/42, U.S. elite 6-6-7 Army squads (and their HS in GIA) are used for regular U.S. Army forces (including Philippine Scouts) and U.S. 4-4-7/3-3-6 squads (and their HS in GIA) are used for Philippine Army (P.A.) troops. For rules purposes, P.A. Personnel are considered U.S. Army units; however, neither Heat of

Battle nor ELR Replacement can transform a P.A. MMC into a non-P.A. U.S. MMC or vice-versa (hence a P.A. 4-4-7, or its HS, that Battle Hardens becomes Fanatic). This restriction applies even in early-war scenarios in which P.A. Personnel counters are actually being used to represent rear-echelon/badly-disorganized U.S. Army (as opposed to P.A.) troops.

17.3 INHERENT CREWS: in scenarios vs Japanese, U.S. Inherent AFV crews have a Morale Level of 8 and U.S. Inherent non-AFV crews have a Morale Level of 7. in all other scenarios, the Morale Level of U.S. Inherent crews is 7 and 6 respectively. [EXC to all: LC Inherent crews; 12.11]

17.4 NAPALM: Napalm[44] (in lieu of HE) bombs may be used by U.S. FB if both of the following conditions are met:

- The scenario is vs Japanese and set in/after $^7/44$ (or is vs Germans and set in/after $^8/44$); and

- After determining that the FB is/are armed with bombs, the U.S. player makes a Napalm Availability Secret Final dr of ≤ 1 (a -2 drm applies if the scenario is vs Japanese). One dr determines the type of bombs for all of that side's FB [EXC: if the SSR specifies that the FB is/are carrying HE (only) bombs, the Napalm Availability dr is NA].

17.41 EFFECTS: Napalm bombs are treated the same as HE bombs for TH purposes [EXC: napalm always receives an extra -1 TH DRM, and Target size TH DRM do not apply; napalm cannot achieve a CH]. A hit by napalm is treated as an attack by a 24-FP FT except as stated otherwise. Napalm FP is not halved by HIP/concealment or Long Range, but is halved if the attack used the Area Target Type. A napalm attack vs a cave can also attack other caves Accessible (11.6) to it, as per 11.834; see also 11.86. Napalm neither causes Air Bursts nor leaves Residual FP. A napalm hit is resolved as a single attack vs all in-LOS targets (both friendly and enemy) in the hex, using one Effects DR [EXC: napalm has no effect on any unit/SW/Gun that is in shallow/deep water other than a non-flooded stream]. Despite the fact that napalm normally creates smoke (see below), it may be used after another weapon has fired non-SMOKE ammunition in that same phase. An Original K/KIA napalm attack result does not cause a Flame. However, any hit by napalm [EXC: one that occurs in shallow/deep water other than a non-flooded stream] results in the immediate placement of a Blaze counter at the Base Level of the target hex (or Entrance Hex, vs a cave; see 11.86), even if that hex is not Burnable Terrain, and the simultaneous placement of a white +3 Smoke counter (which represents the smoke from that Blaze) directly beneath that Blaze—even if Gusts/Heavy-Winds/Rain/Mud/Deep-Snow are in effect. All Blaze/Smoke rules apply in the normal manner except as stated otherwise. When that Smoke counter is removed from the board, that napalm Blaze counter is removed as well if it is in non-Burnable Terrain; if it is in Burnable Terrain, the player who placed it must at that time make a Kindling DR, and if the Final DR is ≥ that terrain's Kindling number that napalm Blaze instantly becomes a Terrain Blaze. If Heavy-Winds/Rain are in (or come into) effect, the Smoke counter that accompanies a napalm Blaze is considered to exist only for the purpose of determining when that Blaze will be removed or transformed into a terrain Blaze; however, Gusts/Mud/Deep-Snow have no effect on napalm smoke.

When the napalm Smoke counter is removed from the board, a separate Random SW Destruction dr is made on the IFT's 12 FP column for each non-subterranean SW/Gun still in the hex that contained the napalm Blaze. A +1 drm applies to a SW/Gun in a pillbox. A napalm Blaze itself does not affect any Fortification or cause a vehicle/wreck to be removed from play.

17.42 BRITISH/CHINESE: British FB may use napalm as if they were U.S., but availability vs Japanese is limited to 1945, and vs Germans is limited to Italy and 4-^{5}/45. Only U.S., British, and G.M.D. Chinese FB may use napalm.

17.5 MTR OBA: Regardless of whether the U.S. player is using Army/Marine troops, he may not exchange 60mm mortars for OBA (U.S. Ordnance Note 1) if every hex along his only Friendly Board Edge is an OCEAN (13.12) hex, nor if any of those mortars enter as reinforcements [EXC: if all three mortars enter on the same turn and non-OCEAN edge of the playing area, they may be exchanged at the start of that Player Turn].

18. THE CHINESE

18.1 Chinese troops are of two distinct types: Nationalist ("G.M.D.") and Communist ("Red"). Chinese counters [EXC: Red Chinese Personnel; 18.3] have a unique orange background color[45].

The term "Chinese", when not preceded by "G.M.D." or "Red", refers to both types collectively.

Leaders (Nationalists):

COD Squads & Crews:

GIA Squads, Half-Squads, and Crews:

SQ:

HS:

Crews:

18.2 G.M.D.: Shown above is the G.M.D. MMC. A 3-3-7 may Battle Harden to a 5-3-7 (or a 1-2-7 HS to a 2-3-7 HS) only if 5-3-7s form the Majority Squad Type of the G.M.D. OB that is currently in play. G.M.D. Personnel cannot Deploy, are always Lax at night, have a "0" Heat of Battle DRM, and receive an extra +1 drm for Leader Creation purposes. Non-elite (not just Inexperienced) G.M.D. Chinese must pass a 1PAAMC rather than a normal PAAMC.

18.21 SMOKE: 5-3-7 squads may attempt WP placement.

Red (Communist) Chinese Leaders:

Red Chinese Squads:

GIA: ◇ COD:

18.3 RED: Red Chinese squads, HS and SMC use Partisan counters while their crews use Russian crew counters and can be identified by the 'R' on the counter or by the blue outline around the inside of the counter. All Red Chinese are considered Partisans for all purposes, and are immune to Cowering.

18.31 COMMISSARS: Red (only) Chinese may use Commissars just like $^{10}/_{42}$ Russians. However, if a Commissar fails to rally a Red Chinese unit, the latter is not Replaced/eliminated—it simply remains broken [EXC: Fate].
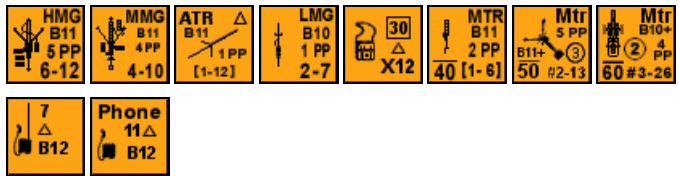
18.4 EQUIPMENT: All Chinese units may use Chinese SW, Guns and vehicles. Neither Red nor G.M.D. Chinese treat Chinese SW/Guns as Captured, even if one side captures them from the other during play. Each SW Scrounged/Removed from a Chinese vehicle is represented by the appropriate Chinese SW.

18.41 ORDNANCE: Chinese ordnance [EXC: non-Captured ATR and Baz] uses red TH numbers.

18.42 OBA: Chinese OBA is determined randomly as normal except there is a –1 drm to the size of the Artillery module. However, if the original Majority Squad Type of the full Chinese OB is 5-3-7, its OBA is assumed to have Plentiful Ammunition; if that Majority Squad Type is of 3-3-7 or 3-3-6 variety, it is assumed to have Scarce Ammunition [EXC: for DYO see 18.82].

18.421 RADIO: The Contact number of a Chinese radio is "8" if the original Majority Squad Type of the full Chinese OB is 5-3-7, "7" if that Majority Squad Type is 4-4-7, or "6" otherwise.

18.43 TEMPORARY CREW: A Chinese HS, or infantry-crew, being used as a Temporary Crew receives a +2 drm to its TH DR's.

18.44 VP: A Gun, dm 76-82mm MTR, or vehicle, of the Chinese side which is Captured by the opponent has its regular VP value quadrupled (instead of doubled) at the end of play.[46]

EX: A captured, functioning Chinese Gun held by the Japanese at scenario end is worth 8 (instead of the normal 4) VP.

18.5 HUMAN WAVE: Chinese may make Human Wave attacks same as Russians.

18.6 DARE-DEATH SQUADS: During his pregame setup the Chinese player may predesignate 10% (FRU) of the squads (only) in his scenario OB as Dare-Death Squads[47] by secretly recording their IDs on paper *[EXC: no 5-3-7 may be so designated]*. Each armed, Good Order Infantry Dare-Death Squad (or its surviving HS) that at the start of its MPh is in/ADJACENT-to a Location containing an unpinned, Good Order, friendly Personnel leader, and that is within eight MF of an enemy ground unit to which it and that leader have a LOS, may at that time go berserk voluntarily *[EXC: it cannot thusly go berserk if it/that-leader is marked with a Prep/Bounding/Pin/TI counter, nor if any marsh/swamp/cliff/unbridged-Water-Obstacle would prevent it from reaching that enemy unit's hex during that MPh, nor if that enemy unit is in an OCEAN Location]*. The berserk MMC must then charge that enemy unit (now considered its Designated Target) and attempt to enter its Location. The leader (and/or any other Good Order friendly leader stacked with that berserk MMC) may (but need not) go berserk at the same time, provided each such leader is Infantry to whom none of the conditions given in the above EXC apply; each who does go thusly berserk must charge that same enemy unit. Infantry that voluntarily go berserk automatically return to normal at the end of that Player Turn *[EXC: if in Melee at that time, they remain berserk until no longer in Melee]*. Use a red-on-white Berserk counter to indicate a unit that has gone berserk voluntarily. A leader, whether created from a Dare-Death MMC or not, cannot go berserk voluntarily except as stated above. However, when a Dare-Death MMC does go berserk voluntarily, any hero(es) stacked with it (and allowed to move) may accompany it during that MPh; in that MPh, each such hero is assumed to have eight MF *[EXC: three MF if wounded]* and may enter the Designated Target's Location—but may not move in the subsequent APh.

18.61 HUMAN WAVE: No unit that voluntarily goes berserk (or accompanies it as per 18.6) may also be used to form a Human Wave in that Player Turn, or vice-versa.

18.62 CC: Dare-Death MMC enters into and resolves Hand-to-Hand CC as if they were Japanese. in addition, each non-Hand-to-Hand CC-vs-Personnel attack in which one Dare-Death MMC participates receives an extra -1 DRM. These attributes apply even for a Dare-Death MMC that went berserk involuntarily—or even if it is not berserk (but is unbroken).

18.7 NO QUARTER/PRISONERS: in Chinese-vs-Japanese scenarios set in/after 1938, a No Quarter rule is always in effect for both sides and Prisoners cannot be taken by either side.

18.71 INTERROGATION: For Interrogation purposes, G.M.D. Personnel are always considered to be in a "neutral" country while Red Chinese are always considered in a "friendly" country.

18.8 DYO: Purchasing both Red and G.M.D. Chinese for scenario vs the Japanese is NA. The presence of one 5-3-7 squad in the Chinese OB precludes the purchase of another Chinese squad type for that scenario, and vice-versa. 5-3-7 squad(s) may be purchased only for scenarios set in $^{11}/43-^3/45$ in Burma (see also 18.81).[48] Red Chinese may not be purchased for a scenario set in Burma. The BPV of Red Chinese squads and HS is one > their Partisan BPV; that of their crews is one > their Russian BPV. The G.M.D. Leadership Generation factor is "8" *[EXC: "6" if the G.M.D. Majority Squad Type is 5-3-7]*.

18.81 BURMA: Prior to making purchases for a G.M.D.-vs-Japanese scenario set in 3-5/42 or 11/43-3/45, make a dr. If that Original dr is ≤ 3 the scenario is considered set in Burma. Otherwise it is set in China.

18.82 OBA: The Chinese player may purchase neither Bombardment nor Barrage (Red Chinese cannot use OBA at all). The Scarce- or Plentiful-Ammunition status of G.M.D. OBA (18.42) is based on the current Majority Squad Type of its OB at the time of that battery's purchase.

18.83 AIR SUPPORT: The G.M.D. player may purchase Observation Planes only for OBA of ≥ 100mm, and only for scenarios set in 1944-45. The Red Chinese player may not purchase Air Support.

18.831 NAPALM: G.M.D. FB may use napalm as if they were U.S. (17.4) *[EXC: availability is limited to 7/44-45 in Burma and 4-8/45 in China (see 18.81)]*.

ADDENDUM

49 NIGHT

(ADD) **49.9** *TRIP FLARES:* During setup for a 1944-45 PTO night scenario involving a U.S. Scenario Defender, the U.S. player may assign a number of trip flares (up to the number available in his OB) to any jungle/bamboo/wire/panji Locations.[3] He does this by secretly recording the grid coordinate of each such hex and the number of trip flares set up therein. Each time any, even a friendly, non-Dummy ground unit/stack enters, expends additional MF/MP in or Searches (49.93), a Location that currently contains any trip flare(s), the player owning the trip flare(s) immediately makes a dr (Δ) [EXC: no dr is made if the unit/stack is entering (or entering the Location via) a trench/pillbox/subterranean passage, or is entering the Location via a path/TB created during play, or if the MF/MP expenditure is made for Delay or placing SMOKE; for Panjis see also 9.121]. During the MPh, one dr is made

for each separate qualifying MF/MP expenditure (not for each such MF/MP expended), and is made before Defensive Fire is conducted. The only possible drm is a -4, which applies if during the current Player Turn the unit/stack entered the hex using (or is Searching "across" a hexside that contains) a road or a path that was not created during play. If the Final dr is ≤ the number of trip flares currently in that Location, a trip flare has been set off and a Trip Flare counter is placed therein.

49.91 *EFFECTS:* A Trip Flare counter Illuminates the ground-level Location of its own hex and all Accessible ground-level Locations, including all pillboxes in those hexes [EXC: if placed in a Depression, it can Illuminate in an Accessible Depression hex only if those two hexes share a Depression hexside]. Each Trip Flare counter placed onboard during the MPh is placed with its red-on-white side face-up, and is removed at the end of that Player Turn's CCPh after the placement of "?"; each placed during a RtPh/APh/CCPh is placed with its purple-on-white side face-up, and is removed at the end of the next Player Turn's AFPh . The MF/MP expenditure that sets off a trip flare is considered to have been made in an Illuminated Location. A set-off trip flare is equivalent to a fired starshell.

49.92 *ELIMINATION:* Once a trip flare has been set off, the number of them remaining in that hex is reduced by one (or by two if the flare was set off by a vehicle and the -4 drm applied). All trip flares in the hex are eliminated by an Original KIA DR caused by a HE FFE Concentration; an Original K DR by such an attack eliminates one trip flare in that hex. Vs Bombardment, trip flares have a morale of 7 and must take a NMC; one trip flare in the Bombarded hex is eliminated for every multiple of one by which that MC is failed. Elimination by FFE/Bombardment does not cause trip flare Illumination.

49.93 *SEARCH:* A Search vs a hex reveals the presence, but not the number, of trip flares therein. in addition, when a hex that contains a trip flare is Searched (49.931), a separate trip flare dr is made for that hex as if the Searcher were entering it (49.9), but ignoring the presence of all entrenchments, TB and paths.

49.931 SEARCHING: As each Good Order Infantry/Cavalry MMC, or moving stack that contains ≥ one MMC, ends its move it may attempt to reveal concealed trip flares in Accessible hexes (including its own) by expending one additional MF in its present hex and making a Search dr, provided that all units making the attempt are neither Pinned nor using Assault Movement. Regardless of the outcome, that unit or moving stack is TI for the remainder of that Player Turn. The Final dr indicates the number of Accessible hexes other than its own of the ATTACKER's choice which the unit/stack may not Search. Such hexes may include those which the ATTACKER knows contain no hidden trip flares (such as Open Ground or a just-traversed hex). This dr is modified as follows:

-1 Per Stealthy Searching unit

-1 Per HS equivalent > one HS Searching

+x Leadership factor of best participating leader

+1 Per Lax or CX Searching unit (per each condition)

All Searched hexes (including all above-ground Locations in those hexes) automatically reveal their contents, including the presence of minefields (but not their type and strength) and Fortified Buildings. All enemy concealed units revealed lose their "?" (or if hidden are placed on board with a "?").

FOOTNOTES

1. *AMBUSH:* It was impossible to move through such terrain without making noise; hence the defenders were less likely to be caught off guard by approaching enemy troops.

2. *RADIOS:* The damp climate had a deleterious effect on voice radio sets. Moisture and corrosion affected circuits and metal contacts, altered frequencies, and occasionally knocked out sets completely. Moreover, the heavy jungle itself would block the waves transmitted by some of the less powerful radios.

3. *TRIP FLARES:* Since the light of starshells and IR often would not penetrate the canopy of foliage in the jungle, trip flares were sometimes used to detect enemy movement. These flares were actually incendiary grenades and incendiary instructional bombs, with trip wires attached.

4. *THE JAPANESE:* The rationale behind most of the rules for the Japanese should be self-evident. Moreover, much has been written about the "fanatical" characteristics of the Japanese fighting man in WW2, so there is no need to go into detail in it here. Suffice it to say that his incredible courage in the face of even certain death and his willingness to die rather than be taken alive were based on three main factors: having been raised in a highly regimented society with little regard for the individual; the iron discipline enforced in the military; and Bushido, the code of the Samurai. Bushido stressed unquestioning bravery and loyalty, the unimportance of the individual, that failure in battle demanded death, and that capture by the enemy was unthinkable. Together all these produced what some have called the best infantry in history.

It's also interesting to note that the pre-war Japanese Army viewed the Soviet Union

as its main potential foe, and its organization and tactics were designed primarily for a war along the Soviet-Manchurian frontier. (Contrary to popular belief fostered largely by Allied propaganda, the Japanese did not spend the 1930s training for jungle warfare.) Aware that Soviet manpower vastly outnumbered their own, the Japanese devised tactics that would provide maximum advantage for their smaller army, such as utilizing night attacks whenever possible in order to minimize casualties; the maximum use of deception, speed, surprise and infiltration to put and keep the enemy off balance; and great emphasis on sniping, which can enable one man to pin down many times his own number (in theory each Japanese squad contained two or three snipers and even LMG were used for sniping, some being equipped with scopes for that purpose). On the other hand, and counterproductive to the principle of force preservation, was the obsession with the perceived advantage of attacking at all times (even when a defensive posture was obviously more prudent) and the conviction that the ultimate aim of an attack was to overwhelm the enemy in hand-to-hand combat. These notions caused the Japanese tremendous numbers of unnecessary casualties, and only late in the war did they finally accept the fact that Allied firepower had bankrupted such tactics.

5. SMC: The rationale behind having Japanese leaders wound rather than break is twofold. First, and most obviously, it would seem quite uncharacteristic (and ahistorical) to have the inheritors of the Samurai tradition flee (i.e., rout) from the enemy. It's hard to imagine an Imperial officer casually submitting to such a horrendous loss of face. Second, the Japanese officer's code of conduct and distinctive sword made him an obvious target; in fact, Allied troops—especially snipers—were often instructed to fire on them whenever possible. Hence, Japanese leaders should tend to be eliminated from play more quickly than those of other nationalities.

6. ARMOR LEADERS: in most armies, AFV crews were considered highly trained specialists too valuable to squander as infantry, and were often under standing orders to move to the rear if their vehicle was rendered hors de combat. To the Japanese, however, infantry combat reigned supreme, and dismounted crews were expected to continue fighting on foot. Hence an unsaddled Japanese tank officer would not hesitate to carry on as an infantry leader.

7. T-H HEROES: The Japanese employed specially trained tank-hunter troops to augment their infantry's poor anti-tank cabilities. These men, sometimes referred to as "human bullets" and often organized into teams found mainly in rifle companies and regimental engineer units came to be used quite extensively. Their role was to ambush or close-assault enemy AFV, using MOL, mines, DC, and various other weapons that became available as the war went on. However, even if weaponless they were to attack in an attempt to immobilize the AFV by any means possible, including the use of mud to cover the AFV's vision devices and jamming the tracks by inserting stout poles into the running gear.

8. ATMM: Unlike the German ATMM which utilized the shaped-charge (HEAT) principle to make it quite lethal, the Japanese version contained a relatively small amount of explosive and was not a HEAT-type weapon. It was more like a mini-DC, and was fairly ineffective against any but light (i.e., thinly armored) AFV. For game purposes a successful ATMM dr does not necessarily mean the T-H Hero is actually using an ATMM; rather, it abstractly represents his possessing any weapon that offers a better chance of knocking out that particular type of AFV. Depending on the type of AFV, this could be an ATMM, a MOL, an A-T mine, a "lunge-mine" (a powerful shaped-charge on the end of a long wooden pole), a hand-thrown shaped-charge grenade, or any of the various large satchel/box charges developed by the Japanese for the human A-T role. The dr is treated as an ATMM dr strictly for simplicity, there being no real need for the rules to differentiate between the various types of weapons available to tank-hunters at any given time.

9. T-H HERO LOSS: Needless to say, the casualty rate among tank-hunters was extremely high. in many cases they were not meant to die as a result of carrying out their assigned task, but some of their weapons by their very nature did cause death to the user. Too, T-H Heroes are abruptly removed from play for simplicity, since leaving them onboard indefinitely would require a further host of special rules and would be ahistorical given their special role and the "one-shot" weapons they used.

10. A-T SET DC: This represent the late-war use of various items such as large-caliber artillery shells, aerial bombs, naval mines and torpedoes, and even drums of gasoline, which were buried in roadways as part of the increasingly desperate attempt by the Japanese to stem the onslaught of Allied armor. They were usually detonated by remote control. Occasionally, bombs were placed in foxholes along with a volunteer who was to set off the bomb by striking its fuze with a rock or hammer as an enemy AFV passed overhead, but this method achieved little success and hence is not represented in the game. The use of A-T Set DC vs Russians is not allowed on the assumption that the Soviet blitzkrieg, with its tank columns advancing sixty miles a day in some cases, simply moved too rapidly to allow the Japanese time to organize much in the way of set defenses.

11. HAND-TO-HAND CC: The Japanese soldier was taught to view his "righteous bayonet" as his own Samurai sword, and that the ultimate goal of all combat was to engage his enemy in hand-to-hand fighting. He generally received a great deal of training in hand-to-hand combat—training that was both physical and mental ("spiritual", as they called the latter). In view of this and the fact that normal CC mechanics would often actually discourage the Japanese player from aggressively seeking out CC opportunities (especially vs American squads with their higher FP), it was decided to make their CC hand-to-hand and to give them an extra - 1 DRM. These act as game incentives to recreate their historical tactics.

12. DENSE-JUNGLE ENTRY: To "realistically" portray the difficulties of movement through dense jungle would require the use of Minimum Move for each such hex entered (or two MF if using a path). The excitement level of scenarios using this MF cost would be dreadful, to say the least, and would be little improved even if the cost of dense jungle were changed to three or four MF. Therefore, woods entry costs have been retained, solely for the sake of playability.

13. MORTARS in DENSE JUNGLE: The thick foliage canopy of dense jungle generally prevented the use of indirect fire by guns beneath it, because the projectiles could detonate if they hit even a few leaves.

14. EC & BAMBOO: Bamboo stores a large amount of water in its hollow stems during the wet season but when the water has been exhausted in the dry season the plant becomes extremely flammable.

15. PALM TREES: Palm trees, while much taller than the fruit trees normally found in orchard have significantly less foliage. Moreover, the fronds are concentrated at the very top of the trunk, thus providing less of a hindrance to sight. For this reason, and for the sake of simplicity, the one-level height of orchards has been retained.

16. COLLAPSE PTC: The Collapse PTC represents the chance of falling debris temporarily distracting, blocking the view of, and/or physically pinning down the occupants of the hut. in both cases normal morale and leader modifications do not apply on the assumption that the units involved cannot control or influence the effects of the collapse. When an Inherent crew fails a Collapse PTC it is assumed that debris has blocked the driver's vision (and, in the case of an OT AFV, has cluttered up its interior); hence the vehicle has to stop and the crew must relinquish some degree of cover as they hastily clear it away.

17. HUTS & FORTIFICATIONS: Since wire and Panjis cannot be created or moved during play, they obviously can appear in a collapsed hut Location only if the hut was already collapsed at the start of play (i.e., by SSR).

18. KUNAI: This is a type of tall (5-7 ft. high), coarse grass found in SE Asia and nearby regions. Generally speaking it is quite common in that part of the world, often being found in jungle "clearings" and sometimes covering broad expanses of otherwise-open ground. The edges of its leaves are sharp and can cause lacerations. Kunai also collectively represents other similar types of growth such as elephant grass.

19. PADDY TYPES: A Drained paddy is one that is currently uncultivated; it is not filled with water and has no rice growing in it. "Dry" would perhaps be a more appropriate term for this type were it not for the fact that calling a paddy "dry but muddy" would sound a bit odd. An Irrigated paddy is one that is flooded with several inches of water; any rice growing in it is not yet tall enough to affect LOS. An In-Season paddy refers to one in which the rice plants are at their mature height. It should be noted that the rice-paddy depictions and rules are highly abstracted. For example, the banks shown on the overlays are just tools for LOS and movement rules; the actual paddy bank are assumed to be anywhere within the area represented by the paddy hex (which is why units on a Bank counter are not defined as being on any specific bank/hexside). Each hex should be visualized as generally containing more than one separate paddy, and thus a corresponding number of different banks.

20. PANJIS: Panjis are split bamboo stakes about two feet long, sharpened and driven into the ground to an angle of 45 degrees facing in the same direction. They were usually implanted to form a dense belt of stakes perhaps five feet in width. The function of a panji belt was akin to that of wire to channel or impede movement. While wire was a more effective impediment, it was often unavailable. Moreover, panji were more dangerous to cross, especially when hidden in the undergrowth.

21. ABOVE/BENEATH PANJI COUNTER: A unit above the Panji counter is considered to be within the panji belt, while one beneath it is "behind" or "past" the belt and free of its impediments. Hence the one MF/MP cost of going from above to beneath the Panji counter (or vice-versa) usually represents the extra time and difficulty involved in negotiating the belt.

22. JAPANESE CAVES: While it is true that other nationalities utilized cave positions on occasion, the Japanese used them far more extensively than anyone else. Allowing any side in a DYO scenario to purchase caves would only lead to their abuse due to their formidableness in the defense. Of course, a SSR in a printed scenario card always allow caves to be used by another nationality, should it be necessary for historical accuracy.

23. HIDDEN ACTIONS: The way caves and cave complexes are treated in game terms requires that much of what the Japanese player does with his subterranean units will not be verifiable by the opponent. This is unfortunate as it can enable an unscrupulous player to cheat, but it is ardently hoped that in the interest of fair play

the Honor System will be faithfully adhered to. Should the Allied player wish to have a verifiable record of hidden Japanese actions, the following option is suggested. Whenever a Japanese unit conducts an activity while hidden, or becomes hidden as it changes Location, its owner records that unit and action on a sheet of paper (using a separate sheet for each Player Turn). At the end of that Player Turn he hands the sheet in a sealed envelope marked with the Player Turn number, to his opponent. At game end the envelopes may be opened and all actions verified.

24. *MORTAR FIRE FROM CAVES:* Most mortars used an elevation of 45° when firing at maximum range, and had to increase elevation (/reduce the number of propellant increments) to fire at shorter ranges. The Japanese light mortar, however, used the same 45° setting regardless of the desired range, and thus could be positioned a short way into a cave and still be able to fire at all ranges.

25. *CLIMBING ALONG NON-CLIFF HEXSIDE:* This rule attempts to re-create the tactic of approaching a cave from above on the hillside, then using a rope to lower a demo charge to the cave's mouth.

26. *REVEALING CAVES WITH WP:* The Americans found that WP grenades/shells bursting inside a cave were useful in revealing other higher-level openings, since WP's hot smoke naturally tends to rise.

27. *STUN VCA CHANGE:* The Stun result is assumed to occur vs the LC's pilot and the VCA change represents the LC circling aimlessly until his position is re-manned.

28. *OVERLAY SETUP:* Prior to setting up the Beach and OCEAN overlays players may wish to butt some unused board (perhaps upside-down) against the playing area so that the overlays will lie on top of it.

29. *EFFLUENT:* The water in an Effluent hex is considered too shallow to cause any significant water-type game effect.

30. *WADING:* Some might question the necessity of rules for Wading when the Fording rules already exist. Suffice it to say that the penalties and restrictions of Fording (specifically, being allowed to move only one hex per Game Turn while continuously subject to Hazardous Movement) were found to be too severe in this application, and would have made a Tarawa-type landing impossible to re-create. A Wading unit is—as the term implies—one whose feet/wheels/tracks are actually touching bottom in the shallow water.

31. *OCEAN LOS & ACQUISITION:* These rules reflect the fact that in real life the assaulting craft did not appear "from offboard" (i.e., out of nowhere), and most likely were being observed and taken under fire at a distance > that represented by an OCEAN overlay. The DD tank is an exception because in deep water its raised screen hid its true identity, and made it so innocuous-looking that it drew little enemy fire.

32. *SEAWALLS:* Seawalls are built to prevent erosion of the coastline. Generally they do not rise above ground level on the landward side, which is why the special rules for movement, LOS and TEM are necessary.

33. *SAN:* The increased SAN of the side making the assault landing represents gunfire from other landing craft such as LCP, LCG, LCI(G) and LCS, which in general carried a number of 20mm/40mm automatic weapons (plus, in some cases, guns of 76mm or rockets). These craft were used to provide direct fire support from close-in offshore until the initial wave of LC/LVT touched down. They generally remained farther offshore than the distance represented by an OCEAN overlay, so their contribution to the assault has been abstracted.

34. *TETRAHEDRONS:* Tetrahedrons (aka "hedgehogs") were logs or steel beams lashed/bolted/welded together at angles to each other, and set up in shallow water to puncture the hull of LC (or at least impede their landing). Often, a contact mine was attached at the top to make them more lethal. The game piece also generically represents other beach obstacles of similar function (e g, cribs, which are large boxes made of logs/wire and filled with stones/cement).

35. *NAVAL OBA:* Naval gunfire was crucial to the success of a number of amphibious operations during WW2. The greatest effectiveness was achieved by the U.S. and Royal Navies which, through the development of shore fire-control parties, were able to bring even battleships and heavy cruisers to the support of the infantryman. A ship providing naval indirect fire required a CIC (Combat Information Center) to plot its own position continuously, convey that position to military grid coordinates, and calculate (by hand) the required trajectory and fire-control data for the ship's guns in response to gunfire support requests from onshore (or from a spotter aircraft).

36. *SHORE FIRE-CONTROL PARTIES:* Only the U.S. and Royal Navies were able to develop, train and equip special land based forward observer teams for naval indirect fire.

37. *SFCP RADIO:* The HF (High Frequency—as opposed to UHF or VHF) radio used by a SFCP required a generator (instead of batteries) for power. in addition it needed to be grounded to earth, further decreasing its mobility.

38. *NOBA BATTERY ACCESS:* A ship assigned to gunfire support generally had only one SFCP or observation plane, so could remain "available" to its observer. However, the time interval involved in responding to a fire mission request could occasionally be significant (in game terms) as the ship repositioned itself, turned to unmask turrets or dealt with other strictly naval concerns.

39. *NOBA BLAST AREA:* The relatively flat trajectory of naval guns plus the residual effects of the ship's roll (even after gyrostabilization) combined to make the Blast Are of NOBA elongated in comparison to that of field artillery, but with an effective decrease in lethality at the extreme ends of the elongation due to the lower mean number of shells impacting at those points. (The technical term for this is "range bias".)

40. *REVERSE SLOPES:* The high velocity and relatively low elevation limits of naval guns give their shells a low, flat trajectory compared to the howitzer used by field artillery. While the latter can often lob shells onto the far side of a hill (indeed they are designed specifically to have this capability), naval guns cannot.

41. *NOBA IR:* Ships with guns of 150mm almost always carried other armament capable of firing IR. Hence such a ship could fire an IR even in the midst of conducting some other fire mission.

42. *SHIPBOARD OBSERVER:* in lieu of using land-based or aircraft observers, ships could provide fire support if their fire-control directors, which were equipped with very powerful optical range-finding equipment, had a LOS to a target. The ship's fire-control "computers" were designed to take pointing and range information from the directors, combine it with ballistic data and the ship's course and speed, and rapidly yield a fire-control solution which pointed and elevated the ship's main battery to engage the target. However, ship captains not in touch with an observer were very reluctant to fire until sure they were actually engaging the enemy and not a friendly force.

43. *U.S.M.C. SQUAD TYPES:* Although more than half of the men in the early-war Marine rifle and BAR squad were authorized the M1 Garand semi-automatic rifle they were in fact equipped with the old bolt-action Springfield '03. This, plus the fact that the squad contained only 8-9 Marines, explains its relatively low FP in the game. The mid-war rifle squad contained twelve men and the authorized complement of Garands. The late-war rifle squad was designed to break down into three four-man fire teams and the squad leader; however, to have allowed the 7-6-8 to Deploy into three HS would have required more special rules and exceptions than the capability would be worth in game terms, so the idea of Deploying without a leader was adopted to reflect in a direct but simple manner the squad's tactical flexibility.

44. *NAPALM:* The original type of napalm consisted of aviation fuel mixed with a thickening agent to provide a form of jellied gasoline. It was generally carried by aircraft in auxiliary fuel tanks, and ignited by incendiary grenades or small incendiary bombs attached to the tanks. Over two-thirds of the napalm used by the U.S. Army Air Force during WW2 was dropped in the Pacific theater. While at the time it was believed to be a devastating weapon (both physically and psychologically) vs enemy personnel, later tests revealed that it was not really as effective as had been thought. Nor did it even approach the effectiveness of Napalm-B, its postwar replacement.

45. *G.M.D. CHINESE:* "G.M.D." stands for Guomindang (aka Kuomintang [KMT] and pronounced "gwo-min-dong"), the Nationalist Party of Generalissimo Jiang Kai-shek. The 5-3-7 represents the U.S. trained-and-equipped personnel of X-Force and Y-Force, which fought in Burma and China in the latter part of me war. The 4-4-7 represents normal elite Chinese troops—"elite" here meaning reasonably well trained, equipped and led. Known as "The Generalissimo's Own" and personally loyal to him, many of these units were squandered—against the better judgment of Jiang's German advisors—in and around Shanghai and Nanjing (Nanking) in 1937. Other divisions of this elite force were held in reserve to keep watch on the Communists, and only occasionally saw action against the Japanese. The 3-3-7 and 3-3-6 MMC represent the mass of China's eventual 300+ divisions (which averaged only about 6,000 men apiece, including numerous coolies). These, comprised largely of forcibly conscripted peasants and controlled by provincial governors, bore the brunt of the war with Japan. The vast majority (about 90% of the Nationalist divisions) were poorly trained and under equipped, suffered from a dearth of good leadership, an almost total lack of medical facilities and a high incidence of malnutrition. Nevertheless, the Bing (Chinese equivalent to "GI") fought on in defense of his home and land, occasionally inflicting surprising defeat on the often overconfident and rigid-thinking—and always outnumbered—Japanese.

46. *VEHICLE/GUN VP:* With ordnance and equipment so scarce, their capture by the enemy resulted in a tremendous loss of face for the person(s) responsible. in addition, since only the best divisions and armies possessed quantities of field artillery (which was one reason they were the best), losing any of it caused me commanding general (who effectively "owned" everyone and everything under his command) to forfeit a proportionate amount of political prestige and power.

47. *DARE-DEATH SQUADS:* Generally speaking, a marked aversion to offensive action existed at all levels of the Chinese Army. However, in an attempt to

compensate for this, many battalion commanders formed a special platoon of "dare-death" (gan-si-dui—also variously translated as "dare-to-die", "do-or-die" or "against-all-odds") squads or teams. These units, whose existence was widespread despite no official authorization from the High Command, were made up of patriotic, anti-Japanese volunteers. They were used as shock troops, with close-quarter fighting their specialty. Gan-si-dui teams were employed by Red as well as by G.M.D. forces, but evidently were not used in American-trained outfits.

48. *5-3-7s & BURMA:* Y-Force, part of whose troops were U.S. trained-and-equipped (and hence are represented in the game by 5-3-7s), actually fought in China's Yunnan province during its nine-month push into northeastern Burma. However, for DYO purposes both Y-Force and the Japanese who opposed it are considered to be in Burma.