



Strategic Warfare

24. STRATEGIC WARFARE

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24.1 OVERVIEW:

24.11 SW UNITS: Strategic bombers, interceptors, submarines, ASW and transports are considered strategic warfare units. The number of SW units which may be employed is determined by each major power's SW unit force pool (24.2). The starting levels (24.3) of each major power may be increased in the course of the game.

24.12 USE OF SW UNITS: SW units are constructed in the unit construction phase (24.4), and SW is resolved during the combat phase (24.6). This process is repeated each player turn.

24.13 SW EFFECTS: SW may affect enemy BRP and shipping levels and may have other effects, depending on the target selected (24.6).

24.14 For specific applications of the strategic warfare rules, see rules 25 (submarine warfare) and 26 (strategic bombing).

24.2 SW FORCE POOLS:

24.21 FORCE POOL EXPANSION BY PRODUCTION: All SW unit force pools may be expanded by the expenditure of RPs for production (42). SW unit force pool expansion is permitted in the first full year of war and thereafter, subject to the following restrictions:

A. Strategic bombers may not be produced by a major power which has not achieved at least one "10+" result for strategic bombers. At the start of the game, only Britain and the U.S. meet this requirement. The Western Allies may produce strategic bombers exclusively for European use beginning in the first year following the outbreak of war; and the U.S. may produce strategic bombers exclusively for Pacific use beginning in 1944 (42.22B).

Classic A World at War

In classic A World at War, SW units may not be produced until 1940.

B. Western Allied RPs may not be assigned to ASW and transport production until the 1941 YSS.

C. Western Allied and Japanese RPs may not be assigned to submarine production until the 1942 YSS, regardless of when war breaks out between Japan and the Western Allies.

D. Japanese RPs may not be assigned to ASW production until the 1943 YSS, regardless of when war breaks out between Japan and the Western Allies.

24.22 TIMING: SW unit force pool increases from production come into play either at the end of the research phase (interceptors, strategic bombers) or the unit construction phase (submarines, ASW, transports) in which the RPs assigned to their production are activated, although the actual construction of the new SW units, including the construction of newly produced interceptors and strategic bombers (27.91A), may be constrained by spending, construction and shipbuilding limits.

24.23 WESTERN ALLIED SW FORCE POOLS:

24.231 WESTERN ALLIED FORCE POOLS DISTINCT: Britain and the U.S. have separate force pools for strategic bombers, interceptors and submarines. Western Allied strategic bomber, interceptor and submarine force pool additions from production are attributed to Britain, the U.S., or some to each.

24.232 WESTERN ALLIED STRATEGIC BOMBER FORCE POOLS: The Western Allies have three distinct strategic bomber force pools:

A. BRITAIN: British strategic bombers may only be used in the European theater. Britain begins the game with one strategic bomber factor in its force pool.

B. U.S. (EUROPEAN): American European strategic bombers may only be used in the European theater. The U.S. begins the game with one strategic bomber factor in its European bomber force pool.

C. U.S. (PACIFIC): American Pacific strategic bombers may only be used in the Pacific theater. There are no American Pacific strategic bombers in existence at the start of the game.

D. STRATEGIC BOMBER PRODUCTION: Western Allied European strategic bomber force pool additions must be allocated so that the British and American European strategic bomber force pools remain at equal strength, with any odd factor going to either major power at the Western Allied player's discretion. American Pacific strategic bombers are produced independently of Western Allied European strategic bombers. RPs may not be allocated to the production of American Pacific strategic bombers until the 1944 YSS.

24.233 WESTERN ALLIED ASW AND TRANSPORT FORCE POOLS COMBINED: The Western Allies have single, combined force pools for both ASW and transports. Western Allied ASW and transport force pool additions from production are attributed to the Western Allies as a whole.

24.234 FRANCE: France may not build SW units.

24.3 STARTING LEVELS:

24.31 STARTING LEVELS: The starting SW unit force pools for each major power are set out below:

A. GERMANY: Submarines: one built, one allowable build.

B. ITALY: Submarines: one built, one allowable build.

C. JAPAN: Submarines: one built, one allowable build; transports: 20.

D. BRITAIN: Submarines: one built, one allowable build; ASW: one built, one allowable build; strategic bombers: one built; Western Allied transports: 35 built, five allowable builds.

E. UNITED STATES: Submarines: one built, one allowable build; ASW: one built, one allowable build; strategic bombers: one built.

F. FRANCE: None.

G. RUSSIA: None.

H. CHINA: None.



24.4 SW UNIT CONSTRUCTION:

24.41 GENERAL: Construction of the following SW units is allowed:

A. GERMANY: Submarines and interceptors; with research: advanced submarines and strategic bombers.

B. ITALY: Submarines.

C. JAPAN: Submarines, ASW, interceptors and transports; with research: strategic bombers.

D. BRITAIN: Submarines, ASW, strategic bombers, interceptors and transports.

E. UNITED STATES: Submarines, ASW, strategic bombers, interceptors and transports.

F. FRANCE: None.

G. RUSSIA: Interceptors; with research: strategic bombers.

H. CHINA: None.

24.42 ROCKETS: Rockets require a successful research result before they may be built.

24.43 SW CONSTRUCTION COSTS: Submarines, ASW, strategic bombers, interceptors and transports cost three BRPs per factor. Submarines, ASW and transports require one shipbuilding point (27.721A) but do not use up shipyard capacity (27.74).

24.44 MECHANICS: See 27.9.

24.5 SW UNIT DEPLOYMENT:

24.51 DEPLOYMENT OF STRATEGIC WARFARE FORCES: The rules for deploying specific types of SW units are set out in rules 25 (submarines) and 26 (strategic bombing).

24.52 TRANSFERS OF UNITS BETWEEN SW BOXES: Both SW units (submarines, ASW, transports, strategic bombers and interceptors) and naval units may be transferred between SW boxes during the redeployment phase, subject only to the normal restrictions applying to the operation of the units in question in the SW boxes. Units transferred between SW boxes are not inverted and may be used in their new SW box in the next player turn, regardless of their use in the SW box from which they were redeployed. All three SW boxes are connected and transfers between them are not subject to any delay and may not be intercepted (EXCEPTION: German submarines may enter and leave the Indian Ocean SW box only from or to a Mediterranean port through the Suez canal - 25.13A).

24.53 AMERICAN STRATEGIC BOMBERS: One American strategic bomber begins the game in the Atlantic U.S. box. American strategic bombers may not be used until deployed to an SW box.

24.54 AMERICAN-BUILT ASW: Western Allied ASW listed as American starting forces or allowable builds and produced Western Allied ASW constructed in an American shipyard must abide by USAT or USJT tension restrictions (25.32) for a theater in which the U.S. is not at war.

24.6 SW COMBAT RESOLUTION:

24.61 SW COMBAT:

24.611 GENERAL: SW combat is resolved during the combat phase of the side employing offensive SW units (submarines, bombers, flying bombs and rockets) against its opponent. Prior to the resolution of SW combat, the moving player may employ raiders and assign eligible AAF to bombing.

24.612 SUBMARINE WARFARE: Submarine warfare SW combat involves submarines and ASW. See 25. Special rules apply to the resolution of SW combat involving advanced submarines (25.73).

24.613 STRATEGIC BOMBING: Strategic bombing involves air combat between any defending air factors and an equal number of attacking air factors, after which SW combat is resolved between the bombers which reach their target and the bombing target. See 26.

24.62 SW COMBAT TABLE: SW combat is resolved by each side rolling two dice and consulting the SW Combat Table.

24.621 NUMBER OF SW FACTORS: If more than 30 SW factors engage in SW combat, the result is determined by applying the SW combat dice roll to the "30" row and whatever other row is required to equal the total number of SW factors engaged and combining the effects.

24.622 MODIFIERS: A positive net modifier for SW combat for one side results in an equal negative net modifier for the other side. These modifiers may also affect the number of transports sunk by submarines and the effect of strategic bombers on their targets.

The convention used for SW combat modifiers is that positive modifiers ("++") favor the attacker, negative modifiers ("--") favor the defender, and some modifiers, such as codebreaking or Nationality DRMs ("+-/-"), can favor one side or the other. All modifiers are determined and the net modifier is calculated and applied. There are no SW combat modifiers which apply only to one side and not the other - a net +1 modifier for one side means there is a corresponding -1 modifier for the other side.

| Strategic Warfare Combat Table - 24.62 | | | | | | | | | | | |
|--|-----------|------|------|------|------|------|------|------|------|------|------|
| SW Fac | Dice Roll | | | | | | | | | | |
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12+ |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0/1 | 0/1 | 0/2 | 1/1 |
| 2 | 0 | 0 | 0 | 0 | 0/1 | 0/1 | 0/1 | 0/2 | 0/2 | 1/1 | 1/2 |
| 3 | 0 | 0 | 0/1 | 0/1 | 0/2 | 0/2 | 0/2 | 1/1 | 1/1 | 1/2 | 1/3 |
| 4 | 0 | 0/1 | 0/2 | 0/2 | 1/1 | 1/1 | 1/1 | 1/2 | 1/2 | 1/3 | 1/4 |
| 5 | 0/1 | 0/2 | 1/1 | 1/1 | 1/2 | 1/2 | 1/2 | 1/3 | 1/3 | 1/4 | 1/5 |
| 6 | 0/2 | 1/1 | 1/2 | 1/2 | 1/3 | 1/3 | 1/3 | 1/4 | 1/4 | 1/5 | 1/6 |
| 7 | 1/1 | 1/2 | 1/3 | 1/3 | 1/4 | 1/4 | 1/4 | 1/5 | 1/5 | 1/6 | 2/5 |
| 8 | 1/2 | 1/3 | 1/4 | 1/4 | 1/5 | 1/5 | 1/5 | 1/6 | 1/6 | 2/5 | 2/6 |
| 9 | 1/3 | 1/4 | 1/5 | 1/5 | 1/6 | 1/6 | 1/6 | 2/5 | 2/5 | 2/6 | 2/7 |
| 10 | 1/4 | 1/5 | 1/6 | 1/6 | 2/5 | 2/5 | 2/5 | 2/6 | 2/6 | 2/7 | 2/8 |
| DR | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12+ |
| 11 | 1/5 | 1/6 | 2/5 | 2/5 | 2/6 | 2/6 | 2/6 | 2/7 | 2/7 | 2/8 | 3/7 |
| 12 | 1/6 | 2/5 | 2/6 | 2/6 | 2/7 | 2/7 | 2/7 | 2/8 | 2/8 | 3/7 | 3/8 |
| 13 | 2/5 | 2/6 | 2/7 | 2/7 | 2/8 | 2/8 | 2/8 | 3/7 | 3/7 | 3/8 | 3/9 |
| 14 | 2/6 | 2/7 | 2/8 | 2/8 | 3/7 | 3/7 | 3/7 | 3/8 | 3/8 | 3/9 | 4/8 |
| 15 | 2/7 | 2/8 | 3/7 | 3/7 | 3/8 | 3/8 | 3/8 | 3/9 | 3/9 | 4/8 | 4/9 |
| 16 | 2/8 | 3/7 | 3/8 | 3/8 | 3/9 | 3/9 | 3/9 | 4/8 | 4/8 | 4/9 | 4/10 |
| 17 | 3/7 | 3/8 | 3/9 | 3/9 | 4/8 | 4/8 | 4/8 | 4/9 | 4/9 | 4/10 | 5/9 |
| 18 | 3/8 | 3/9 | 4/8 | 4/8 | 4/9 | 4/9 | 4/9 | 4/10 | 4/10 | 5/9 | 5/10 |
| 19 | 3/9 | 4/8 | 4/9 | 4/9 | 4/10 | 4/10 | 4/10 | 5/9 | 5/9 | 5/10 | 5/11 |
| 20 | 4/8 | 4/9 | 4/10 | 4/10 | 5/9 | 5/9 | 5/9 | 5/10 | 5/10 | 5/11 | 6/10 |
| DR | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12+ |
| 21 | 4/9 | 4/10 | 5/9 | 5/9 | 5/10 | 5/10 | 5/10 | 5/11 | 5/11 | 6/10 | 6/11 |
| 22 | 4/10 | 5/9 | 5/10 | 5/10 | 5/11 | 5/11 | 5/11 | 6/10 | 6/10 | 6/11 | 6/12 |
| 23 | 5/9 | 5/10 | 5/11 | 5/11 | 6/10 | 6/10 | 6/10 | 6/11 | 6/11 | 6/12 | 7/11 |
| 24 | 5/10 | 5/11 | 6/10 | 6/10 | 6/11 | 6/11 | 6/11 | 6/12 | 6/12 | 7/11 | 7/12 |
| 25 | 5/11 | 6/10 | 6/11 | 6/11 | 6/12 | 6/12 | 6/12 | 7/11 | 7/11 | 7/12 | 7/13 |
| 26 | 6/10 | 6/11 | 6/12 | 6/12 | 7/11 | 7/11 | 7/11 | 7/12 | 7/12 | 7/13 | 8/12 |
| 27 | 6/11 | 6/12 | 7/11 | 7/11 | 7/12 | 7/12 | 7/12 | 7/13 | 7/13 | 8/12 | 8/13 |
| 28 | 6/12 | 7/11 | 7/12 | 7/12 | 7/13 | 7/13 | 7/13 | 8/12 | 8/12 | 8/13 | 8/14 |
| 29 | 7/11 | 7/12 | 7/13 | 7/13 | 8/12 | 8/12 | 8/12 | 8/13 | 8/13 | 8/14 | 9/13 |
| 30 | 7/12 | 7/13 | 8/12 | 8/12 | 8/13 | 8/13 | 8/13 | 8/14 | 8/14 | 9/13 | 9/14 |
| If more than 30 SW factors engage in SW combat, the result is determined by applying the SW combat dice roll to the "30" row and whatever other row is required to equal the total number of SW factors engaged and combining the effects. | | | | | | | | | | | |

24.63 SW COMBAT RESULTS: Subject to 24.66, which sets an upper limit on transport losses, SW combat losses are determined as follows:

24.631 SUBMARINES:

A. ATTACKER'S RESULT:

- The number before the "/" is the number of enemy transports which are eliminated in SW combat, with the maximum number of transports that may be lost to raiders and submarine warfare in a single turn being limited to half (round up) of the number of transports that started that turn in the relevant SW box. Excess losses are treated as damaged (24.66).
- The number after the "/" in the attacker's SW combat result is the number of defending transports which are damaged. If the number after the "/" exceeds the number of transports in the SW box, excess damage is ignored. Damaged transports leave their SW box once SW combat is resolved, unless subsequently eliminated (24.64), and return to port or a mapboard box (25.31), where they are repaired at no BRP cost, remaining inverted for the remainder of the enemy player turn and the owning major power's next player turn. Such transports may not carry out any function until the player turn after they are redeployed back to an SW box.

B. DEFENDER'S RESULT:

- The number before the “/” is the number of enemy submarines which are eliminated in SW combat before reaching the defender’s convoys.
- The number after the “/” is the number of submarine which fail to reach the defender’s convoys and which therefore do not inflict additional losses on the defender (24.64B).

24.632 BOMBERS:

A. ATTACKER'S RESULT:

- The defender loses three BRPs from the bombing target for each number before the “/”.
- The defender loses one BRP from the bombing target for each number after the “/”.

B. DEFENDER'S RESULT:

- The number before the “/” is the number of enemy bombers which are eliminated in SW combat before reaching their bombing target.
- The number after the “/” is the number of enemy bomber factors which fail to reach their bombing target and which therefore do not inflict additional losses on the defender (24.65B).

24.64 SUBMARINE WARFARE - ADDITIONAL LOSSES: In addition to the losses from the submarine SW combat result, before damaged transports return to port:

A. FAVORABLE SUBMARINE SW MODIFIERS: One additional transport is sunk for each net SW combat modifier favoring the attacker.

- Transport losses from the attacker’s favorable SW combat modifier may not exceed the number of submarines operating in the SW box.
- These additional transport losses are unaffected by the defender’s SW combat result – subject to the above limit, each plus modifier for the submarines always sinks one additional transport.

B. SUBMARINES REACHING THE CONVOYS: One additional transport is sunk for each submarine factor unaffected by the defender’s SW combat result.

- Transport losses from submarines unaffected by the defender’s SW combat result are reduced by one transport for each net SW combat modifier favoring the defender.

C. If submarines inflict additional transport losses, undamaged transports are sunk first, then damaged transports returning to port.

24.65 BOMBING - ADDITIONAL LOSSES: In addition to the losses from the bomber SW combat result:

A. FAVORABLE BOMBER SW MODIFIERS: Three additional BRPs are eliminated for each net SW combat modifier favoring the attacker.

- BRP losses from the attacker’s favorable SW combat modifier may not exceed three times the number of bombers attacking the target, as determined after air combat with any defending air units is resolved.
- These additional BRP losses are unaffected by the defender’s SW combat result - subject to the above limit, each plus modifier for bombers always eliminates three additional BRPs.

B. BOMBERS REACHING THE TARGET: Three additional BRPs are eliminated for each bomber factor unaffected by the defender’s SW combat result.

- BRP losses from bombers unaffected by the defender’s SW combat result are reduced by three BRPs for each net SW combat modifier favoring the defender.

24.66 MAXIMUM TRANSPORT LOSSES: The maximum number of transports that may be lost to raiders and submarine warfare in a single turn is limited to half (round up) of the number of transports that started that turn in the relevant SW box. Excess losses are treated as damaged.

EXAMPLE: The Western Allies start Spring 1941 with 11 transports in the Atlantic SW box. They can lose no more than six transports to raiders and submarine warfare, with any excess losses adding to the number of transports damaged by the German SW Combat dice roll.

24.67 DIFFERENT NATIONALITIES: If different nationalities have SW units engaged in combat, SW combat effects are assigned in accordance with rules 19.6 and 20.57.

24.68 MODIFIED RESULTS OF LESS THAN “2”: A dice roll of less than two is treated as a two.

EXAMPLE: Six German submarines are opposed by seven Western Allied ASW in the SW box. The Western Allies enjoy a net -1 SW combat modifier. A German SW combat dice roll of “8”, reduced to “7”, yields a “1/3” result, which sinks one transport and damages three transports. A Western Allied SW combat dice roll of “4”, increased to “5”, yields a “1/3” result, which sinks one submarine factor and forces three submarine factors to abort. Two submarine factors reach the convoy, one of which is offset by the -1 SW combat modifier, so one additional transport is sunk, for an overall result of one submarine factor and two transports sunk, with another three transports damaged.

If the submarines had a +1 SW combat modifier, the German SW combat result would be “1/4”, the Western Allied SW combat result would be “1/2”, three submarines would reach the convoy and sink another three transports, and the +1 SW combat modifier would sink another transport, for an overall loss of one submarine factor and five transports sunk and four transports damaged.

| SW Combat Modifiers Table | |
|---|--|
| Submarine warfare | |
| General: | |
| +/-# | Naval Nationality DRM (22.552A) |
| +/-# | air range research levels |
| + # | attacker torpedo research level |
| - # | defender ASW research level |
| Atlantic: | |
| -1 | for every 6 CVEs in the Atlantic SW box (round down): 0-5: 0; 6-11: -1; 12-17: -2; 18-23: -3; 24+: -4 |
| +2 | Axis control Brest, Lorient, St. Nazaire or La Rochelle |
| +1 | Axis control La Coruna, Vigo, Lisbon, Cadiz or Gibraltar. |
| +1 | Germany and the U.S. are at war |
| + # | Germany and the U.S. are at war: first turn: +2; second turn: +1 (25.66) |
| +1 | a diplomatic result for Ireland of "7" or more |
| +/-1 | Ultra codebreaking advantage |
| Indian Ocean: | |
| -1 | for every 3 CVEs in the Indian Ocean SW box (round down): 0-2: 0; 3-5: -1; 6-8: -2; 9-11: -3; 12+: -4 |
| +1 | Japan controls Colombo (Japanese submarines only) |
| +/-1 | Ultra codebreaking advantage (German submarines only) |
| +/-1 | Magic codebreaking advantage (Japanese submarines only) |
| Pacific: | |
| -1 | for every 3 CVEs in the Pacific SW box (round down): 0-2: 0; 3-5: -1; 6-8: -2; 9-11: -3; 12+: -4 |
| +1 | Japan controls Townsville, Noumea, Suva or any port in the Hawaiian Islands (Japanese submarines only) |
| +2 | Allies control Manila (American submarines only) |
| +/-1 | Magic codebreaking advantage |
| Strategic bombing | |
| Strategic bomber forces v. defending air units (air combat): | |
| +/-# | relative Air Nationality DRMs |
| +/-1 | for each jet engaged |
| - # | defender’s radar research level |
| Strategic bomber v. bombing targets: | |
| +1 | American Pacific strategic bombers |
| +1 | for each attacker strategic bomber research result |
| -1 | for each defender air defense research result |
| Bombing targets use the SW Combat Table row equal to the defensive strength of the target, which is the total of the following: | |
| 1 | each flak factor, airbase counter, objective or anchor symbol |
| 2 | each city or port |
| 1 | each fortification level (+1 for each fortification; +2 for a fortress; beach defenses have no effect on air defense levels) |
| “+” modifiers favor the attacker and “-” modifiers favor the defender. The net modifier for both SW combat dice rolls is always the same, except one is positive and one is negative. | |



25. SUBMARINE WARFARE

- 25.1 SUBMARINES
- 25.2 ASW
- 25.3 USE OF NAVAL UNITS IN SW BOXES
- 25.4 SUBMARINES AND ASW
- 25.5 SUBMARINE BASES
- 25.6 SUBMARINE WARFARE MODIFIERS
- 25.7 THE ATLANTIC
- 25.8 THE INDIAN OCEAN
- 25.9 THE PACIFIC

25.1 SUBMARINES:

25.11 TACTICAL AND STRATEGIC USE OF SUBMARINES: Submarines may operate on the board, basing, moving, intercepting and NRing like other naval units except where noted (22.9), or may operate in the SW boxes against enemy transports.

25.12 TRANSFER OF SUBMARINES TO AND FROM THE SW BOX: A major power may move all, some or none of its submarines to or from an SW box during the redeployment phase. Submarines may not enter or leave an SW box during the movement phase.

25.121 Submarines which attacked enemy naval units on the board during their player turn and are then redeployed into an SW box during the redeployment phase of that player turn remain inverted until the end of the following enemy player turn, and are thus available for SW only during the owning player's next player turn.

25.122 Submarines which are redeployed onto the board from an SW box during the redeployment phase of their player turn remain inverted until the end of the following enemy player turn, whether or not they engaged in SW during their player turn.

25.13 USE OF SUBMARINES IN THE SW BOXES: In order to engage in submarine SW combat in an SW box, submarines must begin their player turn in that SW box. The use of submarines for SW combat is restricted as follows:

A. GERMANY:

- Only German submarines may conduct submarine warfare in the Atlantic SW box. One German submarine may begin the game in the Atlantic SW box, provided Germany completed three steps of *Gathering Storm* submarine research. Additional German submarines may enter the Atlantic SW box from any Western front or Mediterranean port.

Classic A World at War

In classic A World at War, Germany starts the game with one submarine in the Atlantic SW box.

- The number of German submarines that may conduct submarine warfare in the Atlantic SW box each turn until Fall 1940 is limited by the level of German *Gathering Storm* submarine research (transition rule 6.48B):
 - **Less than nine steps of *Gathering Storm* submarine research:** The first turn of war: 1; the second turn of war to Summer 1940: 2; Fall and Winter 1940: 3; Spring and Summer 1941: 4; Fall and Winter 1941: 5; Spring and Summer 1942: 6; Fall 1942: 7; Winter 1942: 8;

and so on, increasing at the rate of one additional submarine each turn. Any remaining German submarines, if built, must operate on the European mapboard or in the Indian Ocean SW box.

- **Nine steps of *Gathering Storm* submarine research:** As above, except a third German submarine factor may conduct submarine warfare in the Atlantic SW box in Summer 1940.
- **Twelve steps of *Gathering Storm* submarine research:** As above, except a third German submarine factor may conduct submarine warfare in the Atlantic SW box in Spring 1940.

Classic A World at War

In classic A World at War, the number of German submarines that may conduct submarine warfare in the Atlantic SW box each turn is limited as follows: Fall 1939: 1; Winter 1939 to Summer 1940: 2; Fall and Winter 1940: 3; Spring and Summer 1941: 4; Fall and Winter 1941: 5; Spring and Summer 1942: 6; Fall 1942: 7; Winter 1942: 8; and so on, increasing at the rate of one additional submarine each turn.

- German submarines may enter the Indian Ocean SW box from the Mediterranean to conduct submarine warfare only if the Axis control the Suez canal and Ethiopia.
- The number of German submarines that may conduct submarine warfare in the Indian Ocean SW box each turn is limited as follows: up to and including 1941: 1; 1942: 2; 1943: 3; 1944: 4; 1945: 5; 1946: 6.

- German advanced submarines do not count against the above limits.

B. ITALY:

- Italian submarines may not conduct submarine warfare in SW boxes.

C. JAPAN:

- The total number of Japanese submarines that may conduct submarine warfare each turn is limited as follows: up to and including 1942: 1; 1943: 2; 1944: 3; 1945: 4; 1946: 5. Japanese submarines conducting submarine warfare may be split between the Pacific and Indian Ocean SW boxes, up to this limit. Any remaining Japanese submarines, if built, must operate on the Pacific mapboard. These limits are increased by Japanese *Storm Over Asia* submarine research:
 - **Nine steps of Japanese *Storm Over Asia* submarine research:** The limits on the number of Japanese submarines that may conduct submarine warfare each turn are increased by one each year: up to and including 1942: 2; 1943: 3; 1944: 4; 1945: 5; 1946: 6.
 - **Twelve steps of Japanese *Storm Over Asia* submarine research:** The limits on the number of Japanese submarines that may conduct submarine warfare each turn are increased by an additional one each year: up to and including 1942: 3; 1943: 4; 1944: 5; 1945: 6; 1946: 7.

Classic A World at War

In classic A World at War, the total number of Japanese submarines that may conduct submarine warfare each turn is limited as follows: 1939-1942: 1; 1943: 2; 1944: 3; 1945: 4; 1946: 5. Japanese submarine warfare may be split between the Pacific and Indian Ocean SW boxes, up to this limit.

- Japanese advanced submarines do not count against the above limits.

Classic A World at War

In classic A World at War, Japan may not produce advanced submarines.

- Japanese submarines may not enter the Indian Ocean SW box to conduct submarine warfare until the turn in which war breaks out between Japan and Britain.
- Japanese submarines may not enter the Pacific SW box to conduct submarine warfare until the turn in which war breaks out between Japan and the U.S. or the turn in which the USJT level reaches 40 or more.

If Japan attacks the U.S. in Winter 1941, Japanese submarines may only enter the Pacific and Indian Ocean SW boxes in the redeployment phase of the Winter 1941 Japanese player turn, and the first Japanese submarine attacks against Western Allied transports would occur during the combat phase of the Spring 1942 Japanese player turn.

D. BRITAIN:

- British submarines may not conduct submarine warfare in SW boxes.

E. U.S.:

- The number of American submarines that may conduct submarine warfare in the Pacific SW box each turn is limited as follows: 1939-1942: 1; Spring and Summer 1943: 2; Fall and Winter 1943: 3; Spring and Summer 1944: 4; Fall and Winter 1944: 5; Spring 1945 and thereafter: 6. Any remaining American submarines, if built, must operate on the Pacific mapboard.
- American submarines may not enter the Pacific SW box to conduct submarine warfare until the turn in which war breaks out between Japan and the U.S. or the turn in which the USJT level reaches 40 or more.
- American submarines may not conduct submarine warfare in the Atlantic or Indian Ocean SW boxes.

25.14 SUBMARINES MAY DECLINE SW COMBAT: Submarines in an SW box may decline to engage in SW combat. When this occurs, the defender's transports are unaffected by the enemy submarines in that SW box.

25.15 GERMAN SUBMARINES IN THE MEDITERRANEAN: Germany may NR one submarine factor each turn past a Western Allied-controlled Gibraltar:

A. WESTERN FRONT PORT: Between a western front port and a Mediterranean port, subject to the range restrictions set out in 21.3612; or

B. ATLANTIC SW BOX: Between the Atlantic SW box and a Mediterranean port, without regard to range restrictions.

25.151 More than one German submarine factor may be transferred in a single turn if the Axis control Gibraltar. Italian submarines may not pass by a Western Allied-controlled Gibraltar.

25.16 WESTERN ALLIED SUBMARINES IN THE MEDITERRANEAN: Similarly, the Western Allies may transfer one submarine factor each turn between the western front and a Mediterranean port if the Axis control Gibraltar.



25.17 ADVANCED SUBMARINES: German and Japanese advanced submarines make a separate SW combat dice roll against Western Allied transports after the resolution of raider combat and conventional submarine warfare:

- A.** Each advanced submarine factor counts as three factors on the SW Combat Table.
- B.** No modifiers are applied to the advanced submarine SW combat dice roll.
- C.** No SW combat dice roll is made by the Western Allies.
- D.** One Western Allied transport is eliminated for each advanced submarine in the SW box.
- E.** Advanced submarines do not count against the limit on the number of German and Japanese submarines that may conduct submarine warfare (25.13A, C).

Classic A World at War

In classic A World at War, Japan may not produce advanced submarines.



25.2 ASW:

25.21 ASW OPERATE FROM SW BOXES: ASW may only operate from an SW box. Newly constructed ASW may remain in port, change bases or deploy into an SW box, but may not operate from ports or mapboard boxes. ASW intercepted and attacked on the mapboard are treated as destroyers.

25.22 USE OF ASW IN SW BOXES:

A. The Western Allied ASW listed as a British starting unit begins the game in the Atlantic SW box.

B. The Western Allied ASW listed as a British allowable build may only be constructed in a British or Canadian shipyard and may deploy to any SW box.

C. The Western Allied ASW listed as an American starting unit and the Western Allied ASW listed as an American allowable build, which may only be constructed in an American shipyard, are both subject to the restrictions set out in 25.32 until the U.S. is at war in both theaters.

D. Western Allied ASW generated by production (42.23B) may deploy to any SW box if constructed in British or Canadian shipyards; if constructed in an American shipyard, such units are subject to the restrictions set out in 25.32 until the U.S. is at war in both theaters.

E. Japanese ASW may not deploy to the Pacific SW box prior to the outbreak of war between Japan and the U.S.



25.3 USE OF NAVAL UNITS IN SW BOXES:

25.31 DEPLOYMENT OF NAVAL UNITS TO AN SW BOX: The U.S., Britain, and Japan (Pacific only) may deploy both inverted and uninverted naval units, ASW and transports, regardless of supply status and oil effects, to the SW boxes during the movement (EXCEPTION: Submarines - 25.12) or redeployment phases; Germany may deploy submarines to the Atlantic and Indian Ocean SW boxes during the redeployment phase. Western Allied naval units may be freely transferred between all three SW boxes during the redeployment phase and are subject to the normal effects of redeployment (24.52, 25.121, 28.82), but their deployment to the SW boxes is otherwise subject to the following restrictions:

A. ATLANTIC: British and American naval units deployed to the Atlantic SW box must be based in a western front port, the Atlantic U.S. box or the South Africa box. Axis naval units may not deploy to the Atlantic SW box (EXCEPTION: German submarines deployed to the Atlantic SW box must be based in a Western front or Mediterranean port).

B. PACIFIC: British and American naval units deployed to the Pacific SW box must be based in Pearl Harbor, Tahiti or the Pacific U.S. or Australia boxes. Japanese naval units deployed to the Pacific SW box must be based in Japan or Truk.

C. INDIAN OCEAN: British and American naval units deployed to the Indian Ocean SW box must be based in Suez, Basra, Abadan, Colombo, Madras or the South Africa, Australia or India boxes. German submarines deployed to the Indian Ocean SW box must be based in a Mediterranean port. Japanese submarines deployed to the Indian Ocean SW box must be based in Japan or Singapore.

D. Only British and American naval units may enter SW boxes. Other Western Allied naval units may not enter the SW boxes.

25.32 TENSION RESTRICTIONS:

A. USAT:

- If the USAT level is 25 or greater, the U.S. may deploy one ASW factor to the Atlantic SW box to be used against German submarines.
- If the USAT level is 35 or greater, the U.S. may deploy a second ASW factor to the Atlantic SW box to be used against German submarines.

B. USJT: If the USJT level is 40 or greater, the U.S. may deploy one ASW factor (25.22C, D) per turn to the Pacific SW box.

25.33 INTERCEPTION: Naval units may not be intercepted when moving or redeploying between mapboard boxes and SW boxes. Movement and NRs to and from SW boxes may be intercepted in mapboard hexes as follows:

A. ATLANTIC: British and American naval units may be intercepted as they move between western front ports and the western edge of the mapboard.

B. PACIFIC: British and American naval units may be intercepted as they move between Pearl Harbor or Tahiti and the eastern edge of the mapboard. Japanese naval units may be intercepted in Truk or a port in Japan.

C. INDIAN OCEAN: Western Allied naval units may only be intercepted by air as they move or redeploy from Suez, Basra or Abadan to the southern edge of the European mapboard. British and American naval units may be intercepted by Japanese air and naval units as they move between Colombo or Madras and the western edge of the Pacific mapboard.

25.34 REDEPLOYMENT OF INVERTED NAVAL UNITS: Inverted naval units may be redeployed to an SW box, but they remain inverted and may not perform any functions during the next opposing player turn.

25.35 FUNCTIONS: While in an SW box, uninverted naval units are restricted to the following functions:

A. Conducting or protecting naval activities which employ transports in that SW box (oil shipments, sea supply, naval missions or BRP grants - 20.64A-D) or protecting sea supply in the Pacific theater (30.361D-F).

B. Shore bombardment or fast carrier missions associated with seaborne invasions from the U.S., Australia or India boxes (Western Allied naval units only) (21.523, 21.553), provided that the seaborne invasion originates solely from the mapboard box (5.931D).

C. The protection of naval units changing base or redeploying to or from a mapboard box, through that SW box (21.224, 28.72B, 28.73D3).

D. Anti-submarine warfare (CVEs only) (25.362).

E. Engaging Axis naval units that raid into the Atlantic or Pacific SW boxes (Western Allied naval units only) (21.5342G).

25.36 MULTIPLE FUNCTIONS: Naval units in an SW box which participate in or protect naval activities passing through their SW box are not inverted unless damaged in combat or withdrawn from the SW box (25.37), and may therefore be used more than once to protect different naval activities which pass through their SW box at different times in the same player turn (such as sea supply during initial supply determination, sea transport, seaborne invasions, BRP grants during post-combat supply determination and NRs). If more than one naval activity of the same type is being carried out at the same time, such as sea supply lines being traced to different ports during the same phase, the moving player must indicate which naval units are protecting which naval activity before enemy air or naval attacks on that naval activity are announced or attempted.

A prudent Western Allied player will place a TF in the Atlantic SW box as long as there is an Axis naval threat against the Atlantic transports. This speeds play, because most Axis players won't even try to intercept protected Western Allied transport activities, and even a weak TF will buy time for additional Western Allied naval units to arrive on the scene if the Axis do intercept. The TF need not be as strong as the threatening Axis naval forces, although it could and often should be, and only the Western Allied player will know for sure. Until the German navy is destroyed or hemmed in by Western Allied land-based air, the Western Allied player should also keep additional naval forces available to counter-intercept.

If the German navy is super-sized or the Axis have captured Gibraltar and the Italians are also coming to the party, the Western Allied player will have to deal with it.

25.361 DESTROYERS: Japanese, British and American destroyers in an SW box may absorb losses from enemy onboard submarine attacks (22.9432).

25.362 CVEs: CVEs are used for anti-submarine duties while in an SW box. The number of uninverted CVEs modifies the SW combat dice rolls for submarines and ASW. Fast carriers have no effect on SW.

25.363 RAIDERS: Uninverted naval units in an SW box are eligible to engage enemy raiders.

25.37 WITHDRAWAL OF UNITS FROM SW BOXES: Naval units and SW units (submarines and ASW) may be withdrawn from SW boxes during either the movement (EXCEPTION: Submarines - 25.12) or redeployment phases, whether or not they were employed during the owning player's turn or the preceding opponent's player turn. Naval units and SW units must withdraw to a location from which they were eligible to enter the SW box in question (25.31). Japanese naval units which withdraw from the Pacific SW box to Japan or Truk during the redeployment phase may protect naval redeployments to Japan or Truk, as the case may be. Western Allied transports may be redeployed between SW boxes, but must always end the turn in a SW box; Japanese transports must always end the turn in the Pacific SW box (20.622).

25.371 WITHDRAWAL OF DAMAGED NAVAL UNITS: Naval units which are damaged during naval combat while in an SW box must withdraw to an adjacent port or mapboard box (25.31) at the end of that naval combat.

25.372 INVERSION OF WITHDRAWING NAVAL UNITS:

A. Naval units which withdraw from an SW box in the movement phase are inverted for the remainder of their player turn.

B. Naval units which withdraw from an SW box in the redeployment phase are inverted for the remainder of their player turn and for the next opposing player turn.

25.38 TRANSFERS OF UNITS BETWEEN SW BOXES: Naval units and SW units may be transferred between SW boxes during the redeployment phase, whether or not they were employed during the owning player's turn or the preceding opponent's player turn, are not inverted after transfer, and may be used in the next player turn (24.52).

25.4 SUBMARINES AND ASW:

25.41 SUBMARINES: The attacker's submarine level is determined by the number of submarine factors in the SW box in question.

25.42 ASW: The defender's ASW level is determined by the number of ASW factors in the SW box in question.

25.5 SUBMARINE BASES:

25.51 PORTS: Submarine warfare depends on the availability of bases from which the submarines in the SW box in question are considered to be operating:

A. GERMANY: German submarines may conduct SW in the Atlantic SW box only from an Axis-controlled operational port on the western front, and may conduct SW in the Indian Ocean SW box only from an Axis-controlled operational Suez.

B. JAPAN: Japanese submarines may conduct SW from any operational port controlled by Japan.

C. U.S.: American submarines may conduct SW from the Australia box or any Pacific front operational port controlled by the Western Allies.



25.6 SUBMARINE WARFARE MODIFIERS:

25.61 SUBMARINE AND ASW SW COMBAT DICE ROLLS: The following modifiers apply to submarine and ASW SW combat dice rolls (positive modifiers favor submarines):

25.62 GENERAL MODIFIERS:

25.621 NAVAL NATIONALITY DRMs: The attacker's and defender's Naval Nationality DRMs are compared.

25.622 TORPEDO AND ASW RESEARCH RESULTS: The attacker's torpedo and the defender's ASW research results are compared. The attacker's ASW and the defender's torpedo research results are disregarded. An "8+" ASW research result is implemented gradually over two turns (41.84).

25.623 AIR RANGE: The attacker's and defender's air range research results are compared. ASW modifiers resulting from air range research apply only when resolving SW combat. Air range modifiers do not affect the resolution of submarine attacks on the board.

25.63 INITIAL MODIFIERS:

25.631 NAVAL NATIONALITY DRMs: Germany and Japan begin the game with a +1 advantage in Naval Nationality DRM in submarine warfare.

25.632 JAPANESE TORPEDOES: Japan begins the game with one torpedo research result to reflect the Japanese Long Lance torpedoes. Because the Japanese torpedo result was achieved prior to the outbreak of war, Japan does not incur a -1 modifier from its pre-war torpedo research result.

25.64 CVEs: The number of CVEs in an SW box (25.362) modifies the SW combat dice rolls for both sides as follows:

A. ATLANTIC: 0-5: 0; 6-11: -1; 12-17: -2; 18-23: -3; 24+: -4

B. PACIFIC AND INDIAN OCEANS: 0-2: 0; 3-5: -1; 6-8: -2; 9-11: -3; 12+: -4

| SW Combat Modifiers Table | |
|---------------------------|--|
| <i>Submarine warfare</i> | |
| General: | |
| +/-# | Naval Nationality DRM (22.552A) |
| +/-# | air range research levels |
| +# | attacker torpedo research level |
| -# | defender ASW research level |
| Atlantic: | |
| -1 | for every 6 CVEs in the Atlantic SW box (round down): 0-5: 0; 6-11: -1; 12-17: -2; 18-23: -3; 24+: -4 |
| +2 | Axis control Brest, Lorient, St. Nazaire or La Rochelle |
| +1 | Axis control La Coruna, Vigo, Lisbon, Cadiz or Gibraltar. |
| +1 | Germany and the U.S. are at war |
| +# | Germany and the U.S. are at war: first turn: +2; second turn: +1 (25.66) |
| +1 | a diplomatic result for Ireland of "7" or more |
| +/-1 | Ultra codebreaking advantage |
| Indian Ocean: | |
| -1 | for every 3 CVEs in the Indian Ocean SW box (round down): 0-2: 0; 3-5: -1; 6-8: -2; 9-11: -3; 12+: -4 |
| +1 | Japan control Colombo (Japanese submarines only) |
| +/-1 | Ultra codebreaking advantage (German submarines only) |
| +/-1 | Magic codebreaking advantage (Japanese submarines only) |
| Pacific: | |
| -1 | for every 3 CVEs in the Pacific SW box (round down): 0-2: 0; 3-5: -1; 6-8: -2; 9-11: -3; 12+: -4 |
| +1 | Japan controls Townsville, Noumea, Suva or any port in the Hawaiian Islands (Japanese submarines only) |
| +2 | Allies control Manila (American submarines only) |
| +/-1 | Magic codebreaking advantage |

25.641 FAST CARRIERS NOT COUNTED: Fast carriers may not be used for anti-submarine warfare.

25.65 DISTANCE FROM SUBMARINE BASES: The control of specified fully supplied ports modifies submarine warfare, as set out in 25.723 (Atlantic Ocean), 25.811 (Indian Ocean) and 25.92 (Pacific Ocean).

25.66 EFFECTS OF WAR BETWEEN GERMANY AND THE U.S.:

The outbreak of war between Germany and the U.S. affects submarine warfare as follows:

A. Each turn Germany and the U.S. are at war, a pro-German +1 modifier applies to German and Western Allied submarine/ASW SW combat dice rolls.

B. In addition, regardless of which country declares war on the other:

- a pro-German +2 modifier applies to German and Western Allied submarine/ASW SW combat dice rolls for the first Axis combat phase following the outbreak of war between Germany and the U.S.
- a pro-German +1 modifier applies for the second Axis combat phase following the outbreak of war between Germany and the U.S.
- This "happy time" modifier reflects the vulnerability of the American east coast shipping before it was organized into convoys and is unaffected by the USAT level when war breaks out.

25.67 CODEBREAKING:

25.671 NUMBER OF CARDS PLAYED COMPARED: Each turn the number of Ultra/Magic submarine warfare and ASW cards played are compared for each of the possible submarine warfare campaigns, as follows:

A. ATLANTIC AND INDIAN OCEAN (German submarines): European Axis Ultra submarine warfare cards vs. British Ultra ASW cards.

B. PACIFIC AND INDIAN OCEAN (Japanese submarines): Japanese Magic submarine warfare cards vs. American Magic ASW cards.

C. PACIFIC (American submarines): American Magic submarine warfare cards vs. Japanese Magic ASW cards.

25.672 EFFECTS: The play of a submarine warfare card, unless offset by the play of an opposing ASW card, generates a favorable +1 modifier for submarine warfare in the affected SW boxes for that turn. Similarly, the play of an ASW card when there is no opposing submarine warfare card to offset it generates a favorable -1 modifier against submarine warfare in the affected SW boxes for that turn.

25.673 MAXIMUM +/-1 MODIFIER: The play of two or more submarine warfare or ASW cards more than the opponent still only generates a favorable +/-1 modifier for strategic submarine warfare in the affected SW boxes for that turn.

25.7 THE ATLANTIC:

25.71 GENERAL: German submarines operating in the Atlantic SW box may conduct submarine warfare against the Western Allied Atlantic transports in the Atlantic SW box (24.6, 25.4, 25.6).

25.72 SUBMARINE EFFECTIVENESS:

25.721 German submarines in the Atlantic SW box may not be used for SW if the Axis do not control an operational port on the western front.

25.722: The number of Western Allied CVEs in the Atlantic SW box modifies the SW combat dice rolls for both sides (25.64).

25.723 Germany receives the following modifiers for submarine warfare in the Atlantic: +2 if the Axis control Brest, Lorient, St. Nazaire or La Rochelle; +1 if the Axis control La Coruna, Vigo, Lisbon, Cadiz or Gibraltar. To gain each favorable modifier at least one of the listed ports must be controlled and fully supplied by the Axis. Each "+" modifier generates a corresponding "-" modifier and vice versa.

25.724 Germany obtains a favorable modifier for submarine warfare when it goes to war with the U.S., because the American east coast shipping is not yet organized into convoys (25.66).

25.725 Germany receives a +1 modifier in the Atlantic if a "7" or greater diplomatic result for Ireland is in effect.

25.726 Either side may obtain a favorable modifier for codebreaking (25.67).

25.8 THE INDIAN OCEAN:

25.81 JAPANESE SUBMARINES: Japanese submarines may not enter the Indian Ocean SW box until the turn in which war breaks out between Japan and Britain.

25.811 JAPANESE SUBMARINE EFFECTIVENESS: Japan receives a +1 modifier for submarine warfare in the Indian Ocean if it controls and fully supplies Colombo.

25.82 JAPANESE AND GERMAN SUBMARINES IN THE INDIAN OCEAN: If both German and Japanese submarines are operating in the Indian Ocean SW box, the Western Allies split their ASW forces as desired

and two separate submarine warfare SW combats are resolved simultaneously.

25.9 THE PACIFIC:

25.91 SUBMARINE EMPLOYMENT: Japanese and American submarines may not enter the Pacific SW box until the turn in which war breaks out between Japan and the U.S. or the USJT level reaches 40 or more. Both sides may use submarines based on the mapboard to attack enemy naval units. Submarines may not pass by an enemy-controlled Singapore (hex EE11).

25.92 SUBMARINE EFFECTIVENESS:

A. JAPAN: Japan receives a +1 modifier for submarine warfare in the Pacific if it controls and fully supplies one or more of Townsville, Noumea, Suva or any port in the Hawaiian Islands.

B. U.S.: The U.S. receives a +2 modifier for submarine warfare in the Pacific if it controls Manila.



26. STRATEGIC BOMBING

- 26.1 OVERVIEW
- 26.2 DEPLOYMENT OF AIR UNITS FOR SW
- 26.3 BOMBING TARGETS
- 26.4 STRATEGIC BOMBING
- 26.5 STRATEGIC BOMBING RESTRICTIONS
- 26.6 FLYING BOMBS AND ROCKETS
- 26.7 BOMBING EFFECTS
- 26.8 FIRESTORMS

26.1 OVERVIEW:

26.11 STRATEGIC BOMBERS: Strategic bombers may attack enemy targets within range of their bases (26.31).

26.12 INTERCEPTORS: Interceptors may operate offensively by escorting bombers to their target or defensively by intercepting enemy bombers or flying bombs.

26.13 AIR FACTORS: Fully supplied, uninverted AAF may operate offensively from operational air bases by attacking targets. One-third (rounded down) of the attacking AAF operate as bombers and the remaining two-thirds act as escorts. AAF may also operate defensively by intercepting enemy bombers or flying bombs. Army air units in air bases which are not operational may intercept enemy bombers or flying bombs only in the hex in which they are based.

26.14 JETS: Jets may operate offensively by escorting bombers to their target, or operate defensively by intercepting enemy bombers or flying bombs. Jets are subject to the same supply and oil restrictions as AAF.

26.15 FLYING BOMBS AND ROCKETS: Flying bomb and rocket attacks may be launched at targets within range of any undamaged operational rocket base. Flying bomb attacks may be opposed by defending interceptors, AAF and jets.

26.2 DEPLOYMENT OF AIR UNITS FOR SW:

26.21 ASSIGNMENT TO FRONTS: The air portions of both the European and Pacific SW boxes consist of three parts which correspond to the three different fronts on each mapboard. Strategic bombers and

interceptors may be deployed from one front to another during the redeployment phase, whether or not they were used during the owning player's turn (24.52). Strategic bombers and interceptors assigned to one front may bomb targets or escort bombers to a target on another front if they have the range to do so, as measured from any operational air base on their front.

26.22 PLACEMENT OF NEWLY CONSTRUCTED STRATEGIC BOMBERS AND INTERCEPTORS: Newly constructed strategic bombers and interceptors may be placed in any of the three fronts of the SW box corresponding to the theater in which they are built provided the owning alliance faction controls an operational air base on that front.

26.23 RESTRICTIONS:

A. BRITISH STRATEGIC BOMBERS AND INTERCEPTORS: British strategic bombers and interceptors may not be employed in the Pacific theater.

B. AMERICAN STRATEGIC BOMBERS AND INTERCEPTORS: Before the U.S. is at war in a theater newly constructed American strategic bombers and interceptors must remain in the U.S. (24.53). Newly constructed American strategic bombers and interceptors may only be placed in the Atlantic or Pacific SW boxes if the U.S. is at war in the applicable theater. Western Allied strategic bomber production for European use may begin in 1940; American strategic bomber production for Pacific use may begin in 1944 (42.22B).

26.24 INTERCEPTORS MAY ATTACK BOMBERS FLYING THROUGH THEIR FRONT: Interceptors may defend against enemy bombing if the path of the attacking bombers passes through, or the target being bombed is on, their assigned front.

26.25 AAF AND JETS: AAF and jets may not be placed in an SW box, but may intercept enemy bombers or flying bombs in hexes within range of their base. AAF and jets in bases which are not operational may intercept enemy bombers or flying bombs only in the hex in which they are based.



26.3 BOMBING TARGETS:

26.31 BASES WITHIN RANGE REQUIRED: Strategic bombers and escorting interceptors may be employed against enemy major powers only if the owning major power controls an operational air base on the front in which the SW units are based, within range of one of the following enemy-controlled targets. Similarly, flying bomb and rocket attacks require an undamaged operational rocket base within range of the target. Bombing attacks from and against the U.S. boxes may only be made by strategic bombers belonging to an alliance faction which has achieved three air range research results. Air bases in Nationalist China may be used by the United States to bomb Japan, but they must be fully supplied from a British or American, not Chinese, supply source and not subject to air oil effects. Eligible targets for strategic bombing by country are listed below:

A. GERMANY: An objective hex in Germany.

B. ITALY: Rome, Milan and Genoa.

C. BRITAIN: London, Birmingham, Manchester, the India box and the Australia box.

D. RUSSIA: A Russian IC, Vladivostok, Irkutsk and the Urals box.

E. UNITED STATES: The U.S. boxes, although Germany and Japan may only use strategic bombers against the United States after obtaining three air range research results.

F. CHINA: Chungking, Nanking, Canton, Shanghai and Peking, if controlled by Nationalist China.

G. JAPAN: Tokyo, Osaka and Kagoshima.

H. NAVAL UNITS IN SHIPYARDS: Naval units which are undergoing repair or construction (on the "Launch" row or higher) in a shipyard, as indicated by an anchor symbol on the mapboard. Undamaged naval units and naval units in a "Waiting for Repair" box may be attacked by air units normally, but may not be attacked by strategic bombing.

I. OIL CENTERS: Any enemy-controlled oil center (26.72, 26.74).

J. SYNTHETIC OIL PLANTS: A German or Japanese synthetic oil plant (26.72, 26.73).

K. ROCKET BASES: Any enemy rocket base.

26.32 SECONDARY TARGETS: If all the eligible key economic areas in Germany, Britain or Japan have been firestormed or subject to atomic attack, cities adjacent to those key economic areas may be bombed. No BRP losses may be inflicted by bombing such secondary targets, although secondary targets may be firestormed or subject to strategic atomic attack, and the political and resistance effects associated with such attacks apply normally.

26.33 ATOMIC ATTACKS USING STRATEGIC BOMBERS AND ROCKETS: Strategic bombers and rockets may be used to make strategic atomic attacks against any enemy targets otherwise eligible as strategic bombing targets, and may be used to make tactical atomic attacks against hexes containing enemy air and naval units (EXCEPTION: The Western Allies may not make strategic atomic attacks against Italian cities). Strategic bombing attacks on hexes which have no economic or oil value are only effective if atomic bombs are used, as there is no economic effect of such strategic bombing attacks.

26.34 CAPTURED KEY ECONOMIC AREAS AND ICs: Captured key economic areas and ICs which originally belonged to another major power may not be attacked by strategic bombers, flying bombs or rockets.



26.4 STRATEGIC BOMBING:

26.41 STRATEGIC BOMBING ATTACKS: The attacker initiates strategic bombing attacks during the combat phase by announcing which of its strategic bombing forces are attacking which enemy targets and the route each force is taking to its target. Each strategic bombing force consists of a bomber component and possibly an escort component, all of which must be of the same nationality.

26.42 BOMBER COMPONENT: The bomber component of a strategic bomber force consists of one or both of the following elements:

- A. The strategic bomber factors assigned to attack the target.
- B. One-third (rounded down) of the AAF assigned to attack the target.

26.421 STRATEGIC BOMBER RANGE: The permitted range for strategic bombers may be increased by air range research (17.72).

26.422 USE OF AAF FOR BOMBING: Uninverted AAF based in an operational air base may fly an offensive air mission and bomb a target listed in 26.3 if the target is within four hexes (Europe) or three hexes (Pacific). The bombing range of AAF is not affected by air range research. NAS may not be used for strategic bombing.

26.43 ESCORT COMPONENT: Escorting air units do not bomb, but instead protect the bomber component of a strategic bomber force up to the limit of the escorts' range. The escort component of a strategic bomber force consists of one or more of the following elements:

A. Any interceptors assigned to escort the bomber component of the strategic bomber force.

B. Any jets assigned to escort the bomber component of the strategic bomber force.

C. The remaining two-thirds of the AAF assigned to attack the target.

26.431 USE OF INTERCEPTORS FOR ESCORT:

A. RANGE: The basic range for interceptor escort (four hexes in Europe; three hexes in the Pacific) may be increased by air range research (17.82).

B. USE ON A DIFFERENT FRONT: Interceptors assigned to one front may escort bombers to a target on another front if they have the range to do so, as measured from any operational air base on their front, provided they did not defend against enemy bombing in the preceding player turn. Interceptors that defended against enemy bombing in the preceding player turn may only escort bombers to a target on their assigned front.



26.44 DEFENDING AGAINST STRATEGIC BOMBING ATTACKS:

26.441 DEFENDER ASSIGNS AIR UNITS TO DEFENSE: Once the attacker has announced the composition and targets of all strategic bomber forces, the defender assigns some, all or none of the available defensive forces to the defense of each target.

26.442 WHERE BOMBER FORCE MAY BE ENGAGED: Each strategic bomber force may be engaged by defending units in one hex along its bombing route, including in the target hex itself. If a strategic bomber force passes through more than one front, it may also be engaged in one hex on each additional front. This is the only circumstance in which a bombing force may be engaged more than once in one turn. All bombers and escorts based in the same hex which are attacking the same target hex must follow the same route.

26.443 WHICH DEFENDING AIR UNITS MAY ENGAGE: The following defending air units may engage strategic bomber forces:

A. INTERCEPTORS: Uninverted interceptors may engage a bomber force that passes within range (four hexes in Europe and three hexes in the Pacific, unless increased by research) of an operational air base on the front to which the interceptors are assigned provided they did not escort bombers to a target on another front in the preceding player turn. Interceptors that escort bombers to a target on another front in the preceding player turn may only defend against enemy bombing on their assigned front.

B. AAF AND JETS: Uninverted AAF and jets may engage a bomber force that passes within range (four hexes in Europe and three hexes in the Pacific for AAF; jet range is determined by the applicable research result) of their operational air base.

C. ONE ENGAGEMENT PER FRONT: A bomber force may be engaged by defending air only once on each front.

D. NON-OPERATIONAL BASES: An air base which is not operational permits interception only in its hex.

E. CHINA: American and Russian interceptors may oppose Japanese bombing in China only if the required air base is fully supplied from a Western Allied or Russian supply source, as the case may be.

26.444 DEFENSIVE AIR MISSION: The employment of AAF and jets to defend against strategic bombers is a defensive air mission.

26.445 ITALY:

A. Italian AAF may only defend bombing targets in Italy by engaging a bomber force attacking bombing targets in Italy in a Mediterranean front hex; Italian AAF may not engage a bombing force in a western front hex and may

not engage a bomber force attacking bombing targets in Germany in a Mediterranean front hex.

B. German interceptors assigned to the Mediterranean front and German AAF and jets within range may engage a bomber force attacking bombing targets in Italy in a Mediterranean front hex; German interceptors assigned to the western front and German AAF and jets within range may engage a bomber force attacking bombing targets in Italy in a western front hex.

26.45 RESOLVING STRATEGIC BOMBING AIR COMBAT:

26.451 AIR COMBAT RESOLVED FOR EACH STRATEGIC BOMBER FORCE: Once the defender has allocated its defending air units to each strategic bombing target, one round of air combat is resolved for each strategic bombing force. If strategic bomber forces from different major powers bomb the same target, the attacker decides the order in which air combat is resolved. Any defending forces not eliminated in air combat with the first strategic bomber force, including those forced to abort by the attacker's air combat dice roll, may engage in air combat with the second bomber force. Air combat between strategic bomber forces and defending air units is resolved using the Air Combat Table (19.2), with the contending air combat strengths being calculated as follows:

A. DEFENDER'S AIR COMBAT STRENGTH: The total number of defending air factors attacking the strategic bomber force.

B. ATTACKER'S AIR COMBAT STRENGTH:

- If the number of defending air factors is greater than the number of air factors in the strategic bomber force, all the attacking air factors engage in air combat.
- If the number of defending air factors is equal to or less than the number of air factors in the strategic bomber force, the number of attacking air factors that engage in air combat is limited to the number of defending air factors. The attacker's air combat strength may not exceed that of the defender (EXCEPTION: Jets - 26.452).
- The attacker chooses which air units from the strategic bomber force engage in air combat with the defending air units. When determining the attacker's Air Nationality DRM for the air combat, only the Air Nationality DRMs of the air units engaging the defending air units are considered, although losses are taken from the strategic bomber force as a whole (26.454).

In most cases, the number of air factors engaged in air combat as a result of strategic bombing will be that of the defending force, and it won't matter which attacking air units engage unless the number of escorting interceptors is greater than the number of defending air factors, as interceptors have a higher Air Nationality DRM.

26.452 JETS: Each jet, whether intercepting or escorting, is counted as one air factor when determining the number of air factors which may engage in air combat, but counts as three air factors when determining the air combat strength of each side.

26.453 AIR COMBAT MODIFIERS: Air combat arising out of the interception of a strategic bomber force is subject to the following modifiers (positive modifiers favor the strategic bomber force; a positive net modifier for air combat for one side results in an equal negative net modifier for the other side - 19.31):

- +1 for each jet used to escort the strategic bombing force
- +/-# relative Air Nationality DRMs
- 1 for each jet used to intercept the strategic bombing force
- 1 for each radar research result achieved by the defender

Because interceptors have an additional +1 Air Nationality DRM (17.85), a defending force consisting of only interceptors will have an advantage in air combat.

26.454 AIR COMBAT LOSSES: Air combat losses for both sides are allocated according to 19.6, with the first lost factor coming from the largest group, the next lost factor coming from the next largest group, and so on. Factors which are lost are taken first, then factors which are forced to abort. Where two categories in a force are equal in size, the loss is taken from interceptors, then escorting or intercepting AAF, then jets, then bombing AAF, then strategic bombers, in that order. Escorting AAF, AAF acting as bombers, strategic bombers, escorting interceptors and escorting jets are treated as separate categories when assigning losses to the attacker's force; intercepting AAF, interceptors and jets are treated as separate categories when assigning losses to the defender's force. Air combat losses are taken from the strategic bomber force as a whole, regardless of which air factors actually engaged in air combat.

Since only one round of air combat is fought between a strategic bomber force and the defender's air units, the apportioning of losses to the defender is not all that important. It can be crucial for the attacker, however. Strategic bombers should, if possible, always be accompanied by both AAF and interceptors, as this means that fewer of the air factors affected by the defender's air combat result will be taken from the bomber, as opposed to escort, component of the attacking force. Strategic bombers bombing with no escorts at all will absorb all the air combat losses inflicted by the defender's air units.

EXAMPLES: 30 German AAF bomb Britain. 10 German AAF act as bombers and 20 German AAF act as escorts. They are opposed by 15 British AAF and one British interceptor. Both sides roll on the 16 row of the Air Combat Table. Each side gets a "6/6" result. Three escorting German AAF and three bombing German AAF are eliminated; then three escorting German AAF and three bombing German AAF abort. Four bombing German AAF make it to their target.

An American strategic bomber force consisting of the following air units

| Escorting AAF | Bombing AAF | Interceptors | Strat. bombers | Jets |
|---------------|-------------|--------------|----------------|------|
| 8 | 4 | 5 | 5 | 1 |

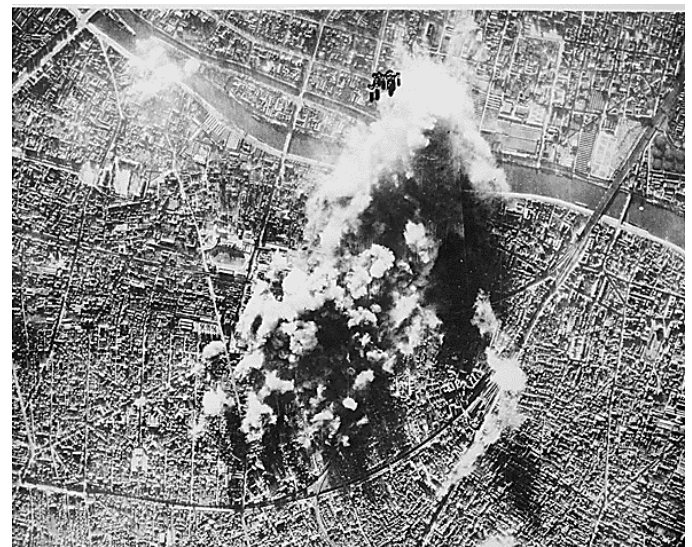
is engaged by seven German AAF, four German interceptors and two German jets.

Germany engages with 13 air factors, with an air combat level of 7 (AAF) + 4 (interceptors) + 6 (each jet counts as 3 AAF) = 17.

The American strategic bomber force engages with 13 air factors, with an air combat level of 12 + 3 (each jet counts as 3 AAF) = 15.

The German air combat result is "6/7". These are allocated as follows:

| Escorting AAF | Bombing AAF | Interceptors | Strat. bombers | Jets |
|----------------------------|-------------|--------------|----------------|------------|
| 8 | 4 | 5 | 5 | 1 |
| Losses | | | | |
| -2 | -1 | -1 | -1 | -1 |
| Aborts | | | | |
| -1 | -2 | -2 | -2 | |
| Bombers which reach target | | | | |
| Irrelevant | 1 | Irrelevant | 2 | Irrelevant |



26.46 RESOLVING BOMBING ATTACKS AGAINST THE TARGET:

26.461 SW COMBAT DICE ROLLS: After air combat is resolved, each side makes one SW combat dice roll for each target. The attacker's level on the SW Combat Table (24.62) is determined by the number of strategic bombers plus the number of AAF acting as bombers which reached the target. Strategic bombers and AAF which were eliminated or forced to abort in air combat are considered to not have reached their target.

A. TARGET DEFENSES: The defender's level on the SW Combat Table is determined by the strength of the target's defenses:

- 1 each flak factor, airbase counter, objective or anchor symbol
- 2 each city or port
- 1 each fortification level (+1 for each fortification; +2 for a fortress; beach defenses have no effect on air defense levels)

B. SW COMBAT MODIFIERS: The strategic bomber and target SW combat dice rolls are subject to the following modifiers. The initial Western

Allied strategic bombing result generates a +1 modifier. Air range results do not modify strategic bombing combat. Positive modifiers favor the bombers:

- +1 American Pacific strategic bombers
- +1 for each attacker strategic bomber research result
- 1 for each air defense research result achieved by the defender

The modifiers applying to air combat between strategic bomber forces and defending air units (26.453); SW combat between strategic bomber forces and their targets (26.461B); and the defensive strength of strategic bomber targets (26.461A) are summarized below:

| SW Combat Modifiers Table | |
|--|--|
| <i>Strategic bombing</i> | |
| Strategic bomber forces v. defending air units (air combat): | |
| +/-# | relative Air Nationality DRMs |
| +/-1 | for each jet engaged |
| -# | defender's radar research level |
| Strategic bomber v. bombing targets: | |
| +1 | American Pacific strategic bombers |
| +1 | for each attacker strategic bomber research result |
| -1 | for each defender air defense research result |
| Bombing targets use the SW Combat Table row equal to the defensive strength of the target, which is the total of the following: | |
| 1 | each flak factor, airbase counter, objective or anchor symbol |
| 2 | each city or port |
| 1 | each fortification level (+1 for each fortification; +2 for a fortress; beach defenses have no effect on air defense levels) |
| "+" modifiers favor the attacker and "-" modifiers favor the defender. The net modifier for both SW combat dice rolls is always the same, except one is positive and one is negative. | |

26.462 MAPBOARD BOXES: When a mapboard box is bombed, it is assumed to have a defensive strength of three, equivalent to an objective city; the defense strength of a mapboard box may not be increased. Uninverted fully or partially supplied AAF and jets in the mapboard box may intercept the bombing factors, even if subject to air oil effects. In addition, interceptors assigned to the western front may defend the U.S. against German bombing; interceptors assigned to the Pacific front may defend the U.S. or Australia against Japanese bombing; interceptors assigned to the Southeast Asian front may defend India against Japanese bombing; interceptors assigned to the eastern front may defend the Urals against German bombing; interceptors assigned to the Asian front may defend the Urals against Japanese bombing. Interceptors are assigned to defense once Axis bombing attacks are announced. Mapboard boxes are considered a different front for the purposes of 26.442; each interceptor may be used either on the mapboard or in a mapboard box.

26.463 ATTACKER'S SW COMBAT RESULT: For the attacker's SW combat result, the defender loses three BRPs for each number before the "/" and one BRP for each number after the "/". These BRP losses are taken from the bombing target.

26.464 DEFENDER'S SW COMBAT RESULT: For the defender's SW combat result, the number before the "/" is the number of attacking bomber factors which are eliminated, and the number after the "/" is the number of attacking bomber factors which abort. These combat effects are distributed between bombing AAF and strategic bombers, as per 26.454.

26.47 ADDITIONAL LOSSES: The defender may incur additional losses if the net SW combat modifier favors the attacker (24.65A), provided all bombing air units were not eliminated or aborted in air combat, or if one or more bombers reach the target without being offset by a net SW combat modifier favoring the defender (24.65B).

26.5 STRATEGIC BOMBING RESTRICTIONS:

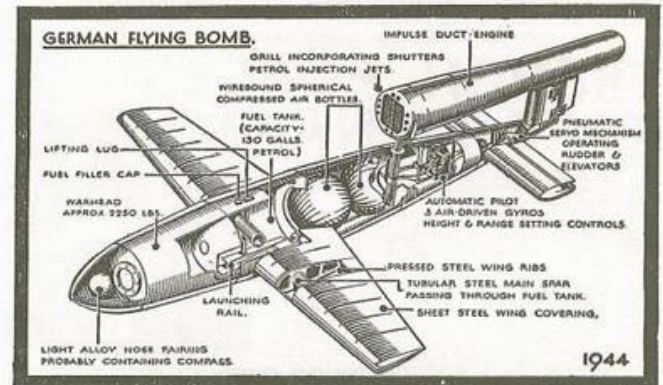
26.51 STRATEGIC BOMBING BY DIFFERENT MAJOR POWERS: The air units of all major powers bomb separately, although they may choose the same targets. The attacker announces the order of the raids, then the defender allocates its air defenses to each target. All defending air units which are not eliminated in air combat against the first strategic bombing attack against a target may intercept a second raid against that same target, and so

on, including defending against subsequent flying bomb attacks. Effects of different bombing raids on the same target are combined to determine bombing effects.

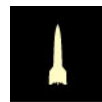
26.52 WESTERN ALLIED-RUSSIAN COOPERATION: Western Allied air units may not defend Russian targets, and vice versa.

26.53 CHINA: China does not receive a favorable SW combat modifier for Western Allied air defense research.

Flying Bomb: Official Picture



26.6 FLYING BOMBS AND ROCKETS:



26.61 ROCKET BASES: Rocket bases may be placed, at no BRP cost, in any fully supplied hex, including hexes in the ZoC of enemy armor, controlled by the placing major power or an alliance faction partner, if permitted by the ally. A major power may not place a rocket base in a hex controlled by an ally who is not a member of its alliance faction. No more than one rocket base may occupy a single hex. The placement of rocket bases is subject to the following:

A. In a turn in which a research result for rockets increases the number of rocket bases that may be used, the new rocket base may be placed on the board during the owning major power's movement phase and may be used in the ensuing combat phase.

B. In addition, each turn a major power may relocate an existing rocket base during its movement phase, for use in the ensuing combat phase, or may rebuild a previously destroyed rocket base by placing it on the board during its unit construction phase, for use in a subsequent turn.

C. Western Allied and Russian rocket bases need not remain in the theater in which they were originally placed.

26.62 ELIMINATING AND DAMAGING ROCKET BASES:

A. A rocket base is eliminated if its hex comes under enemy control.

B. If a rocket base incurs 10 or more BRPs of bombing damage in a single turn, it is eliminated at no BRP cost to the owning major power. If a rocket base incurs less than 10 BRPs of bombing damage in a single turn, the owning major power may either pay the BRPs and keep the rocket base operational, or pay no BRPs and invert the rocket base as damaged and inoperable for its next player turn.

C. Eliminated rocket bases may be placed back on the board at no BRP cost at the rate of one rocket base per turn (26.61B).

26.63 EMPLOYMENT OF ROCKET BASES:

A. One salvo of flying bombs or rockets may be fired from each rocket base at no BRP cost.

B. A "9" research result for rockets allows two rocket bases to be placed; a "10" result, four rocket bases; an "11" or "12+" result, six rocket bases. For each result, half the rocket bases may be used to launch flying bombs and the other half may be used to launch rockets. If there are an odd number of rocket bases, the extra rocket base may be used to launch either flying bombs or rockets.

C. The location of rocket bases determines the range to the target.

26.64 TIMING OF FLYING BOMB AND ROCKET ATTACKS: Flying bomb and rocket attacks are announced at the same time as strategic bombing attacks and are resolved immediately following the resolution of strategic bombing attacks.

26.65 EFFECTS OF FLYING BOMB AND ROCKET ATTACKS:

26.651 BRP EFFECT:

A. FLYING BOMBS: Each flying bomb salvo eliminates 10 BRPs, reduced as set out in 26.661.

B. ROCKETS: Each rocket salvo eliminates five BRPs. There is no defense against rockets. Rule 26.66 therefore does not apply to rocket attacks.

26.652 MAXIMUM EFFECT: The effect of flying bomb and rocket attacks is limited to the BRP value of the target.

26.653 EFFECT ON CONSTRUCTION LIMITS: For flying bomb and rocket attacks on a key economic area, mapboard box or IC:

A. FLYING BOMBS: The defender's construction limit is reduced by one-third of the total BRP losses incurred from flying bombs.

B. ROCKETS: The defender's construction limit is reduced by one BRP for each BRP lost to rocket attacks.

C. CONSTRUCTION LIMIT INCREASES: The construction limit of the major power attacking with rockets is increased by one BRP beyond its normal level for each enemy BRP lost to flying bombs and rockets (EXCEPTION: German losses to American flying bombs and rockets increase the British construction limit). This effect is determined each turn; losses inflicted in previous turns have no additional effect (27.341).

26.66 DEFENDING AGAINST FLYING BOMBS:

26.661 The BRP losses from flying bombs are reduced as follows:

A. For each salvo:

- 1 for each radar research result achieved by the defender
- +/-# relative Air Nationality DRMs
- 1 for each air defense research result achieved by the defender

B. For each target:

- # the strength of the target's air defenses (26.461A)
- 1 for each interceptor or AAF assigned to defend the target
- 4 for each jet assigned to defend the target

EXAMPLE: Two German flying bomb salvos are fired at London, which contains an airbase and two flak factors. Four British AAF are allocated to the defense of London.

Each salvo potentially eliminates 10 British BRPs (26.651A). The Western Allies have one radar research result and one air defense research result, and the Axis and Western Allied Air Nationality DRMs are the same. Each salvo therefore eliminates 8 British BRPs (26.661A), for a total of 16 BRPs. This effect is reduced by 6 BRPs for the air defense level of London and is reduced by a further 4 BRPs because of the four AAF assigned to the defense of London. The British therefore lose 6 BRPs.

26.662 Interceptors, AAF and jets assigned to defend a target against flying bombs may not have been used against enemy strategic bombers in that combat phase unless the bombers attacked the same target as the flying bombs.

26.663 Interceptors which defend against flying bombs may not be used to escort bombers in their next player turn.

26.664 AAF and jets which defend against flying bombs are inverted for their following player turn.

26.67 ATOMIC ATTACKS: An atomic attack may be made by rocket at a range of three European (two Pacific) hexes if the attacker has achieved an "12+" research result for rockets (43.222). Atomic attacks made by rocket may not be intercepted.



26.7 BOMBING EFFECTS:

26.71 BRP LOSSES: The effects of strategic bombers, flying bombs and rockets are treated as "bombing effects" and are combined to determine BRP losses and other bombing effects. BRP losses from the bombing of economic targets are deducted from the targeted major power's BRP total.

A. LIMIT ON BRP LOSSES: The number of BRPs which may be lost to bombing against one hex in one turn is limited to the economic value of that hex. This does not prevent the creation of a firestorm (26.91) in hexes worth less than 25 BRPs, provided all other criteria are met; excess BRP losses are disregarded. The economic value of mapboard boxes are considered to be: Australia box: 10 BRPs; India box: 10 BRPs; Urals box: the Russian BRP base, minus 20 BRPs for Vladivostok and Irkutsk; U.S. boxes: unlimited.

B. EFFECT ON CONSTRUCTION LIMITS: For every three BRPs (round down) lost to bombing of a key economic area or IC, the construction limit of the defending major power is reduced by one in its next player turn (27.331). Japanese bombing of the Australia and India boxes affects both the Australian or Indian construction limits, as the case may be, and the overall British construction limit (71.321, 72.321). Axis and Japanese bombing of the Urals and U.S. boxes affects the Russian and U.S. construction limits, respectively.

26.72 SYNTHETIC OIL PLANTS: For every five BRPs of strategic bombing losses to the German or Japanese key economic area in which a synthetic oil plant is located, one damage marker is assigned to the synthetic oil plant (0 to 4 BRPs of losses: no damage; 5 to 9 BRPs of losses: one damage marker; 10-14 BRPs of losses: two damage markers; and so on). The assignment of damage markers to a synthetic oil plant is in addition to any other strategic bombing effects.

A. DAMAGE: For each damage marker, the oil production of a synthetic oil plant is reduced by one partial oil counter (1 damage marker: 1 less partial oil counter produced; 2 damage markers: 2 less partial oil counters produced; 3 damage markers: 3 less partial oil counters produced; 4 damage marker: 4 less partial oil counters produced). 5 or more damage markers destroy the synthetic oil plant (26.72B).

B. DESTRUCTION: A synthetic oil plant is destroyed if it has five or more damage markers (33.32B).

C. RUSSIAN OIL PLANTS: Russian oil plants in the Urals may not be bombed.

26.73 OIL CENTERS: For every five BRPs of strategic bombing losses to an oil center, one damage marker is assigned to the oil center (0 to 4 BRPs of losses: no damage; 5 to 9 BRPs of losses: one damage marker; 10-14 BRPs of losses: two damage markers; and so on). These BRP losses are notional and do not actually reduce the defender's BRP level or construction limit (EXCEPTION: A produced Russian IC in an oil center) - they are only used to determine the number of damage markers assigned to the oil center. The maximum damage that may be inflicted on an oil center is the number of damage markers required to reduce the oil center's production to zero.

A. DAMAGE: For each odd-numbered damage marker, the oil production of an oil center is reduced by two partial oil counters; for each even-numbered damage marker, the oil production of an oil center is reduced by another three partial oil counters. Every two damage markers therefore reduce the oil production of an oil center by one oil counter.

B. DESTRUCTION: Oil centers may not be destroyed.

26.74 REPAIR: Each turn, Germany, Japan, Britain and Russia each have the capacity to remove two damage markers from oil facilities under their control. Two damage markers may be removed from one oil facility, or one damage marker may be removed from two different oil facilities, as long as a total of no more than two damage markers are removed in a single turn. These repairs are made, at no BRP cost, at the end of the owning player's turn (33.331).

26.75 RUSSIAN ICs: If a Russian IC is bombed, attacked by flying bombs or rockets, or subject to a strategic atomic attack, the maximum BRP loss that may be incurred is the value of the IC (26.71A). Russia may eliminate the IC and incur a BRP loss equal to the full value of the IC (37.5), in which case no additional BRP losses are incurred.

26.76 NAVAL UNITS IN SHIPYARDS: Strategic bombing results against naval units undergoing repair or construction in shipyards are resolved by a dice roll on the SW Combat Table (24.62). If the net SW combat modifier favors the attacker (24.65A) or if one or more bombers reach the target without being offset by a net SW combat modifier favoring the defender (24.65B), a "1/0" result is added to the bombers' SW combat result in place of every 3 BRPs of additional losses. If there is more than one such ship in the attacked shipyard, the strategic bomber SW combat result is

applied as the bombing player wishes, in order to maximize its effect.

26.761 EFFECTS: Strategic bombing results are applied to ships undergoing repair or construction in a shipyard as follows:

- A. For each "1/0" result, the attacked ship is moved two columns to the right.
- B. For each "0/1" result, the attacked ship is moved one column to the right.
- C. Each time an attacked Axis ship is moved out of the column for the current season, the ship is also moved to the next highest row. Each time an attacked Allied ship is moved into the column for the current season, the ship is also moved to the next highest row.
- D. A ship that is moved to a row greater than its size in factors is eliminated.
- E. The "Spring" and "Winter" columns are considered to be adjacent when resolving strategic bombing attacks against ships undergoing repair or construction in a shipyard.

EXAMPLE: In Spring 1942, the Western Allies attack the *Gneisenau*, a 3-factor battlecruiser being repaired in the Kiel shipyard, with three British strategic bomber factors. The *Gneisenau* is in the launch row of the "Fall" column.

The Kiel hex has an SW defensive strength of 5 (two cities and an anchor symbol). There are no defending air units or SW combat modifiers. The Axis player rolls a "4" (a "1/1" result) and the Western Allied player rolls a "9" (also a "1/1" result). One strategic bomber makes it to the target, increasing the attack result by "1/0" (for a total of "2/1").

The Western Allied player applies the entire "2/1" result to the *Gneisenau*, which causes it to be moved five columns to the right. After being moved two columns to the right (from "Fall" to "Winter" to "Spring"), the *Gneisenau* reaches the current season (spring) and is also moved up to the "2" row. The *Gneisenau* is then moved three additional columns to the right and ends up in the "Winter" column on the "2" row, which delays its launch by five additional turns.

26.8 FIRESTORMS:



26.81 CREATION: A firestorm occurs in any eligible hex (26.82A) which sustains at least 25 BRPs of strategic bombing damage in one turn, although the actual number of BRPs lost is limited to the economic value of the hex (26.71A).

26.82 RESTRICTIONS:

- A. Firestorms may only be created in German, Japanese and British cities and in Russian cities which contain ICs, Vladivostok and Irkutsk.
- B. A hex may not be firestormed if it contains a firestorm or atomic attack marker.

26.83 EFFECTS: If a firestorm occurs, a firestorm marker is placed on the hex, and the following political and diplomatic effects are triggered:

- A. The surrender or resistance level of the target major power is reduced by one for each firestorm marker.
- B. The attacker receives one additional DP in the next YSS and in any DP calculation during the year in which the firestorm occurs and the ensuing year.

26.84 NO EFFECT ON SUPPLY OR OIL RESERVES: Firestorms have no effect on supply or oil reserves.

26.85 REMOVAL: Firestorm markers are removed as follows:

- A. By the defending player at the rate of one per turn, starting in the Spring turn of the second year after the year in which they occurred.
- B. If their hex comes under enemy control.
- C. If their hex is the target of a successful strategic atomic attack.