RULES OF PLAY

The Fast Carriers

Air-Sea Operations, 1941-77

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1.0 INTRODUCTION

Fast Carriers is a historical simulation of naval air combat during the period from 1941 through the present. The game is played by Scenario. Historical and semi-historical Scenarios are presented. Playing pieces representing actual ships and aircraft are maneuvered on the game maps and on the Task Force Displays.

[2.0] GENERAL COURSE OF PLAY

Fast Carriers is a two-Player game. Each Player assumes the role of commander of a force of air units based on carrier Task Forces or on airbases. During play, he maneuvers his units in order to attack and destroy his opponent's units. Many of a Player's actions are executed secretly, and simultaneously with those of his opponent. The interaction between opposing naval and air units is regulated on a Strategic Map or on a Tactical Display. Play is divided into Game-Turns. Each Game-Turn is composed of a Strategic Stage, an Operational Stage, and a number of Tactical Stages. During each Game-Turn a Player may move Task Force Markers on the Strategic Map, shift air units on his Task Force Operations Displays, and move air units on the Tactical Display to attack naval units. Ships can bombard shore targets, air units can attack air units, ships can attack air units, and air units can bomb or torpedo ships. Each type of combat is handled separately and in sequence.

[3.0] GAME EQUIPMENT

[3.1] THE GAME MAP

The five Strategic Maps and the Tactical Display are included on one sheet. The Strategic Maps (of the sea of Japan, the Tonkin Gulf, the Central Pacific, the South Pacific and the Norwegian Sea) are used to locate and move Task Forces. The Tactical Display is used to resolve combat between the opposing Task Forces (see 5.1) and air strikes. A hexagonal grid is superimposed over each of the maps to regulate position and determine distance.

[3.2] THE PLAYING PIECES

Two sheets of die-cut playing pieces are provided; one sheet of pieces represents air units, and the other represents ship units. Note that the air units (only) are printed on both sides. Players will be assigned a number of units which must be chosen according to the Scenario being played. Each unit has an identification number, and several values which give the strength, movement ability and other characteristics of the unit.

[3.2.1] Sample Units

Carrier Unit, WWII

Anti-Aircraft Strength (at indicated ranges): 0 to 2 3 to 4 5 to 6

Surface Attack

Ship Type: CV

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, WWII

Anti-Aircraft Strength (at indicated ranges): 0 to 2 3 to 4 5 to 6

Surface Attack

Ship Type: CL

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Carrier Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CV

Defense Strength

ID Number

Name

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, WWII

Anti-Aircraft Strength (at indicated ranges): 0 to 2 3 to 4 5 to 6

Surface Attack

Ship Type: CL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

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Ship Type: CVL

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Non-Carrier Ship Unit, Modern

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Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL

Aircraft Unit, WWII, Back

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVA

Aircraft Unit, WWII, Front

Non-Carrier Ship Unit, Modern

Anti-Aircraft Strength

Surface Attack

Ship Type: CVL
[3.22] Summary of Unit Types

SHIPS

22-12-3
0 2
 Aircraft Carrier

CV 101
Zubuku

7-4-1
6 3
 Heavy Cruiser

6 3
CA 435
Suzuki

40
5 411
CAAA
Akishima

11 033
0 2
 Nuclear Attack Carrier

11 033
12 CVAN
Enterprise

12 037
2 0 3
 Anti-Aircraft Cruiser

12 037
2 0 3
DD 602
Hosokaze

12 037
2 0 3
Nuclear Guided
Missile Cruiser

27 9 014
4 2
Nuclear Submarine

14 9-2
2 0 2
DDG

14 9-2
2 0 2
CVL 331
Junyo

9-5-1
1 573
1
CVS

1 1-0 0
8 0

Oiler

0 0 0
8 0

Transports

0 0 0

Minelayer

1-1-0
1 573

Minersweeper

[3.3] DEFINITION OF TERMS

Surface Attack Strength is the fire-power effectiveness of a ship, when firing at other ships, quantified in terms of Surface Attack Strength Points. If this is followed by an "s" this strength is doubled when attacking submarines.

Defense Strength is the ability of a ship to resist damage from attack (either by aircraft or ships) quantified in terms of Defense Strength Points.

Anti-Aircraft Strength is the fire-power effectiveness of a ship, when firing at aircraft, quantified in terms of Anti-Aircraft Strength Points.

Anti-Air Combat Strength is the effectiveness of an aircraft unit when attacking or defending against
[4.0] SEQUENCE OF PLAY

Fast Carriers is played in successive Game-Turns. Each Game-Turn represents four hours of real time. What actions the Players may take and the order in which they may take these actions is governed by the Game-Turn Sequence of Play. This sequence is identical for each Game-Turn, and is divided into three tiers or Stages. These are the Strategic Stage, the Operational Stage, and the Tactical Stage.

During the Strategic Stage, actions take place which occur over the entire four hours of the Game-Turn, though, for purposes of simplicity and playability, these actions are taken at the very beginning of the Game-Turn. These actions are: surface combat, strategic naval movement, and strategic search. Next comes the Operational Stage, which covers various air operations. It is subdivided into four Operational-Turns. Each Op-Turn represents one hour of real time. During each Op-Turn, a Player could, for example, have air units take-off, land or reorganize on his carriers, and could record the movement of air strikes and determine if an air strike contacts Enemy units in the Tactical Stage, during which air vs. air, and air vs. surface combat is resolved. Each Tactical Stage is played in Tactical-Turns and each Tac-Turn represents forty seconds of real time.

[4.1] GAME-TURN SEQUENCE OUTLINE

A. STRATEGIC STAGE

The game consists of the number of Strategic Game-Turns specified in the Scenario being played. Each Scenario begins with the Game-Turn Marker in space number one on the Game-Turn Record Track. For Scenarios which last more than one day (six Game-Turns), the Game-Turn Marker is returned to space number one at the beginning of the next day. Each Game-Turn is composed of three Phases and one Interface, as follows:

1. Surface-to-Surface Combat Phase. Players resolve any and all surface to surface combat between opposing naval Task Forces which are in the same hex on the Strategic Map.
2. Strategic Naval Movement Plan and Execution Phase. Both Players simultaneously plot and then execute movement of naval Task Forces on the Strategic Map.

Strategic-Operational Interface: Play now moves to the Operational Stage if desired by either Player. If neither Player desires to conduct air operations, play immediately proceeds to the next Game-Turn.

B. OPERATIONAL STAGE

The Operational Stage is composed of no more than four Operational-Turns, during which the Players may take operations. These operations are represented on the Operational Displays, each consisting of a Search Display, Carrier Display and Strike Displays. The Players conduct air operations by shifting air units between the several boxes on the various displays. As a product of these operations, the Players establish when and if an air strike contacts its target. Each Operational-Turn is composed of five Phases and one Interface, as follows:

1. Take-Off Phase. Both Players may secretly and simultaneously take air units from the Flight Deck boxes of their Carrier (s) Displays and place them on the Search, CAP and/or Strike Displays, in one or more Wave boxes, to signify that these units have been launched on these missions. Players must set the endurance clock for air units placed in a Strike display, and record an Air Strike Plot.
2. Carrier Status Display Phase. Both Players may secretly and simultaneously change the status of their air units by changing the location of the air units between the status boxes of each display.
3. Landing Phase: Both Players may recover air units from Search, CAP and Strike Displays by placing them on the Carrier Displays.
4. Air Movement Phase: Both Players secretly and simultaneously record on their air strike plots the movement of their air strikes, and move the Endurance Markers one space to the right on the Endurance Clocks.
5. Strike Contact Phase: Both Players announce whether they have an air strike which is in the same Strategic hex as its plotted target. They then determine (in any order they wish) whether or not each strike finds its target using Strike Contact Procedure.

Operational-Operational Interface: When all possible contacts have been resolved so that both Players know which targets have been found by air strikes, each decide the order in which they will execute the resulting Strike situations.

C. TACTICAL STAGE

The Players resolve each Strike situation separately in any order they wish. If two or more air strikes are attacking the same target, the attack must be resolved one after the other. When all attacks of air strikes have been resolved, play reverts back to the Operational Stage and a new Op-Turn is begun (or, after the fourth Operational-Turn of Game-Turn, play would revert to the next Strategic-Turn). Each Strike situation is resolved in the following manner:

Defending Player Initial Set-Up

The defending Player places the units composing the target on the Tactical Map. If the target is a Task Force, the Player must place the units (ships) corresponding to the Task Force Composition Display. (If the target is a land base airfield complex, the units will be Air Base Markers placed in hex 000 of the Tactical Display.) These naval units may be placed anywhere on the Tactical Map so long as no unit is adjacent to any other. If there is a carrier (or carriers) present it should be placed in (or adjacent to) hex 000 of the Tactical Map. The defending Player then places his CAP air units anywhere on the Tactical Map. These CAP units are taken from the CAP Display of the Operational Display for the Task Force under attack and are placed accordingly.

Tactical (Wave) Routine

The attacking Player executes the wave arrival procedure, which determines how many waves of the air strike are to be used in the first Wave Routine, and where on the perimeter of the Tactical Map they are placed. He then places the air units accordingly.

The Wave Routine consists of six Tactical-Turns. The first Tactical-Turn of the Wave Routine marks the end of the First Wave Routine. Play now reverts to the Attacking Player Initial Set-Up, wherein the attacking Player determines the arrival of the remaining waves in his air strike. Then Wave Routine Nr. 2 (another six successive Tac-Turns) is played, followed by another Attacking Player Set-Up for any remaining uncommitted waves, and a third Wave Routine ensues, followed by successive Wave Routines as necessary, until finally the last attacking air unit has either exited the map or has been eliminated. The Strike Situation is then concluded. The surviving naval units are removed from the Tactical Display and are placed back in the appropriate Task Force Display Box (with any necessary notation being made as to their damage state). Surviving CAP units are placed back into their appropriate CAP Display. (Surviving Air Strike units are returned to their Air Strike Display as they exit from the Tactical Map.)

TACTICAL-TURN SEQUENCE

The Tactical Turn consists of seven separate Phases. The Player who owns the air strike is the attacking Player; the target owner is the defending Player. The Player whose Phase is currently in progress is the Phasing Player; only the Phasing Player is allowed to move or attack.

1. Defending Player Air Movement Phase: The defending Player may move his air units and place Altitude Markers as permitted.
2. Carrier Facing and Displacement: The defending Player may change the facing of any carriers present and execute any necessary ship displacements.
3. CAP Attack Phase: Defending air units may attack Enemy air units with results being applied immediately.
4. FLAK Attack Phase: Ship and Air Base units may be used to attack Enemy air units with results being applied immediately.
5. Attacking Player Air Movement Phase: The attacking Player may move his air units and place Altitude Markers as permitted.
6. Attacking Player Air Attack Phase: The attacking air units will attack Enemy air units (CAP) with results being applied immediately.
7. Air-to-Surface Attack Phase: The attacking air units may attack ship and air base units with the results being applied immediately.

NOTE: Turn Markers are provided to be placed in and moved through the Game-Turn, Op-Turn and Tac-Turn spaces on the Sequence of Play Record Track as play progresses.

[5.0] THE STRATEGIC STAGE

GENERAL RULE:

The Strategic Stage is played on a Strategic Map as detailed in the Scenario instructions. On this map, the Players plot and move Task Force Markers. Actual ship and air units are not deployed on the Strategic Map.

CASES:

[5.1] DEPLOYING TASK FORCES

The Scenario instructions will state the Order of Battle for each Player, listing ship units, assigned to carriers and air bases, and FLAK units assigned to air bases. The Players will then divide their ship units into one or more groups (called Task Forces) by placing the ships in the space marked “Units in Task Force” on the Task Force Display. [Sometimes the Scenario instructions will regulate the compositions of Task Forces.] One Task Force Marker will be placed on the Display to identify the Task Force. This Task Force Marker will correspond to a Task Force Marker on the Strategic Map with the same number.

[5.11] Each Player has eight Task Force Markers, numbered one through eight. No Player may use more than eight Task Forces.

[5.12] The initial composition of Task Forces is secret. Players should not reveal which Task Force Markers represent which groups of ships, except as in the search procedure and the execution of combat eventually require.

[5.13] A Player may deploy dummy Task Force Markers. A dummy is a Task Force which has no ships in its corresponding Task Force Display. He may never deploy more dummy Task Forces than he has “real” Task Forces (those with ships in the Display).
[5.14] A dummy Task Force exists to confuse the Enemy Player. So long as its identity as a dummy is not revealed it remains in existence and may be moved on the Strategic Map as though it were a "real" Task Force.

[5.2] TASK FORCE DISPLAY

[5.21] Each Player will require one Task Force Operations Display for each Task Force. The Display is used to record the make-up and air activity of the Task Force. The Display provides a location to place, and to keep track of which naval units belong to which numbered Task Force. There is no limit to the number or type of naval units that may be a part of one Task Force.

[5.22] Once placed on the appropriate Task Force Display, naval units must remain in their Task Force Box, unless there is a decision to shift them (see 5.5), or until a Tactical Stage (see 11.0), or if there is a Surface-to-Surface Combat (see 6.0).

[5.23] During a Tactical Stage, if the Task Force is being attacked, then the naval units which make up Task Force are removed from their Task Force Display and are placed on the Tactical Display.

[5.24] After the Tactical Stage is finished, any remaining naval units, in whatever condition, are placed back on their original Task Force Display.

[5.25] If there is Surface-to-Surface Combat (which occurs during the Surface-to-Surface Combat Phase), and if the Task Force is involved, then the naval units which make up Task Force are removed from their Task Force Display and are placed on one side of the Tactical Display.

[5.26] After the Surface-to-Surface Combat Phase is finished, any remaining naval units, in whatever condition, are placed back on their original Task Force Display.

[5.3] STRATEGIC PLOTTING

During the Strategic Naval Movement Plot and Execution Phase, both Players first plot and then execute movement of their Task Forces. Movement is plotted simultaneously and secretly. The plots are then executed in any order that the Players desire.

[5.31] Both Players plot movement for all the Task Forces they wish to move during the Strategic Naval Movement Plot and Execution Phase.

[5.32] Each Player plots movement on a piece of scratch paper, noting the Task Force number and the hex he wishes the Task Force to move into.

[5.33] Plotting and movement are voluntary. But if a Player does not plot movement, he must execute it, and if he does not plot movement, he may not move.

[Players' Note: The use of Task Force Markers serves two purposes. First, it eliminates unwieldy stacks of ship units from the Strategic Map. Second, both Players can see at any point the relative positions of their forces. They will know exactly where the Enemy units may be, but because of the use of dummy Task Force Markers, they will neither know which Task Forces contain ships nor how many ships belong to each Task Force.]

[5.4] STRATEGIC MOVEMENT

Strategic movement consists of each Player physically moving his Task Force Markers from one hex to an adjacent hex on the Strategic Map.

[5.41] During the Strategic Movement Phase, each Task Force may move only one hex in any direction, within the restrictions below.

[5.42] A Task Force may move one hex per Strategic Game-Turn (movement capability may not be "loaned" from one Task Force to another, nor "saved" from one Game-Turn to another).

[5.43] The actual movement of Task Force Markers may be executed by the Players in any order they desire. Each Player simply refers to his Movement Plot and moves each of his Task Forces accordingly. There are no restrictions on the number of Task Forces which may exist in a single hex on the Strategic Map. Task Forces may freely enter and exit hexes containing any number of Task Forces, both Friendly and Enemy. Thus, theoretically there could be up to sixteen Task Forces in a single Strategic Map hex.

[5.44] There is no "Zone of Control" in this game. The presence of an Enemy Task Force in no way inhibits or restricts the movement of Friendly Task Forces.

[5.45] Task Forces may not cross prohibited hexes. If a Player inadvertently plots a move which would require a Task Force to cross such a hexside, the move is considered void and is not executed [the Task Force loses a move].

The pictured outline of land masses on the map has no direct bearings on movement. The Players are to be guided in movement plotting solely by the presence or absence of prohibited hexes.

[5.46] "Coastal" hexes, containing both land and sea, may be entered and exited freely by Task Forces (within the restrictions of 5.45). [However, air operations from a carrier belonging to a Task Force in a coastal hex are severely restricted.]

[5.47] Task Forces containing transports may only move on an even numbered Game-Turn. In effect, they move at half the speed of Task Forces containing no transports.

[5.5] TASK FORCE REGROUPING

[5.51] A Player may change the composition of his Task Forces by transferring ship units from one Task Force to another.

[5.52] To transfer ship units, the Player must obey all the following criteria:
1. The Task Force units between which the transfer is to take place must be on the same Strategic Map hex. A Player may not transfer ship units from one Task Force to another Task Force if the Task Forces are in different Strategic Map hexes.
2. The transfer may only be accomplished during a night Game-Turn, at the beginning of the Strategic Movement Plot and Execution Phase. To transfer the ship units, a Player takes those ship unit markers from one Task Force Display and places them in the other Task Force Display.
[5.53] Any ship unit may transfer to any Friendly Task Force, even a dummy Task Force. If a Player transfers ship units to a dummy Task Force, the Task Force is no longer a dummy Task Force. If all the ship units from a Task Force transfer to another Task Force, then the Task Force now becomes a dummy Task Force.

[5.54] After Players have finished transferring their ship units, the Task Forces may now be plotted to move.

[5.55] A Player may declare that a given Task Force is a dummy. Removing the Task Force Marker from the Strategic Map, he may then redeploy the marker, placing it in any other Task Force's hex, and assigning ship units to it. A Player may also declare used Task Force Markers from the counter mix and place them in any Task Force Marker hex on the map.

[5.56] A Task Force containing two (or more) ship units may be divided into two (or more) Task Forces. The Player physically divides his units onto two (or more) Task Force Displays.

[6.0] SURFACE-TO-SURFACE COMBAT

GENERAL RULE:
Surface-to-surface combat between opposing ship units, and surface bombardment, are executed in the Surface-to-Surface Combat Phase of the Strategic Game-Turn. They can occur whenever two (or more) opposing Task Forces are found to exist in the same hex on the Strategic Map, or whenever an Enemy Task Force is in a coastal hex containing a Friendly shore target (usually an airbase).

PROCEDURE:
The Players first determine whether or not they will fight. Assuming that a combat occurs, the ship units of the Task Forces concerned are placed on the Tactical Display. The combat is resolved and then the surviving units are returned to their respective Task Force boxes.

CASES:

[6.1] PAIRING AND CONTACT

[6.11] When opposing Task Forces are on the same Strategic Map hex, they must be "paired" on a one to one basis in order to determine the order of surface contact and surface combat.

[6.12] To "pair," the following procedure is used:
1. Each Player secretly assigns a sequence number to each Friendly Task Force in the hex. This number represents the order in which a Task Force of one Player will become paired with a Task Force of the opposing Player. The numbers must be whole numbers starting with one and proceeding consecutively. Players may not "skip" numbers, nor may two Task Forces be assigned the same number.
2. In addition, each Task Force's intention is indicated either "yes" or "no." "No" signifies a Task Force which the Player prefers not to engage in combat. "Yes" means that he prefers to engage that Task Force in combat. Players must assign only one intent, either yes or no.

[6.13] When both Players have finished pairing, they reveal their ordered lists of Task Forces with their intent. Players then compare their lists and pair off their Task Forces. The Task Forces which are listed first in sequence on either side are paired. In certain cases, a Task Force can not be paired. Example: If one Player had two Task Forces, and the other Player had three Task Forces, the third Task Force of the Player may not be paired, nor may it engage in surface combat. However, the third Task Force may engage in shore bombardment (see 13.12).

[6.14] Next, on the Surface Contact Table, the Players cross-index their intent with the time of day, to locate a set of numbers. Roll the die. If the die roll is among the set of numbers listed, then those two Task Forces engage in surface-to-surface combat. If the die roll falls outside the set of numbers, then those Task Forces on either side are engaged in surface-to-surface combat. For example, if both Players have a "no" intention, and if it is a Night Game-Turn, a die roll of "one" is needed for surface-to-surface combat to occur. If a "one" is rolled then Players must have surface-to-surface combat.

[6.15] It may seem ludicrous that combat may even occur if neither Player wants surface combat. But in actuality surface combat can be unavoidable. Hence, whenever surface combat is called for, each Player must attempt (if possible) at least one surface action — at least one ship unit
from each side must fire upon an opposing ship unit to fulfill the mandatory surface-to-surface combat.

[6.16] Every combat between a pair of opposing Task Forces is resolved separately, in any order the Players desire. This may be accomplished in one, two or three combat segments.

[6.2] SURFACE-TO-SURFACE COMBAT
Surface combat between opposing Task Forces is resolved by placing the ship units of the Task Forces involved on the Tactical Display, and having the opposing ship units attack each other. Considerations of range, formation, etc., are immaterial. Basically, attacks are made by comparing a Friendly naval unit's Surface Attack Strength with an Enemy unit's Defense Strength and executing an attack using the Anti-Ship Combat Results Table. A surface Combat Segment consists of a single attack by each attacking ship of each Player. One Player is first considered the attacking Player, and he attacks using any or all of his ship units against one or more Enemy units. Then the other Player attacks using any or all of his ship units against one or more Enemy units. Any results (damage) inflicted are applied after both Players have executed all their attacks. The order in which Players attack is normally immaterial. Once both Players have attacked and the results are applied, the Surface Combat Segment is completed. Then the Players determine if the process is to be repeated or if the Surface-to-Surface Combat Phase is to be declared over, with ship units returning to their respective Task Force Displays. In other words, there may or may not be more than one Surface Combat Segment in each Surface-to-Surface Combat Phase.

[6.21] When opposing Task Forces engage in surface combat, each Player takes the naval units from the Task Force Display and places them in any fashion on the Tactical Map. Formation or orientation is of no consequence. A ship unit's Surface Attack Strength is used to attack an opposing ship unit. The Surface Attack Strength of a ship unit must be used as a whole number. Any single ship may not be divided among several targets.

[6.22] Each ship unit may only attack once per Surface Combat Segment. Ship units may add together the Surface Attack Strength to form one combined Surface Attack Strength and apply it against any one opposing ship unit. Any ship unit may be attacked only once during the Surface Combat Segment. Defending ship units' Strengths may never be combined. They are attacked as individual units.

[6.24] To resolve surface combat, subtract the Defense Strength of the defending ship unit from the Surface Attack Strength of the attacking ship unit to compute a differential.

[6.25] Roll the die. On the Anti-Ship Combat Results Table, cross-index the differential with the die roll. Apply the result immediately to the defending ship unit, before resolving any other attack. The effects of the results are not effective until the end of the Surface Combat Segment.

[6.26] After one Player has finished all his Surface-to-surface attacks, the other Player resolves his surface-to-surface attacks, using the same procedure as outlined above.

[6.27] When both Players have finished their surface-to-surface attacks, the Segment has ended and all Combat Results are in effect. Remove any ship units with a damage accumulation of D4.

[6.28] Air units may neither attack nor be attacked during the Surface-to-Surface Combat Phase. Any air units on a carrier unit which is eliminated due to surface-to-surface combat, are also eliminated.

[6.3] RETIREMENT
Retirement is defined as the cessation of surface combat between two opposing Task Forces.

[6.31] To allow retirement, one Player must roll the die for each pair of opposing Task Forces that engaged in surface-to-surface combat. The die is rolled at the end of each Surface Combat Segment, if either Player wishes to retire. If the die roll is a one, two or three, then that pair must engage in surface-to-surface combat again. If the die roll is a four, five or six, then that pair has retired. Thus, some pairs may continue surface-to-surface combat while other pairs retire.

[6.32] If there have been three Surface Combat Segments, then the pair of opposing Task Forces automatically retire.

[6.33] Whenever a Task Force pair retires, return all the ship units back to their original Task Force Display, reflecting their current damage status.

[6.34] After retirement of one Task Force pair Players may either
1) initiate another Surface Combat Phase for another Task Force pair in the same or any other Strategic Map hex, or, with all combat concluded;
2) proceed to the Strategic Naval Movement Phase in the Strategic Game-Turn.

[6.4] SHORE BOMBARDMENT
Shore bombardment consists of ship units attacking ground installations and grounded air-craft. Shore bombardment occurs in the Surface-to-Surface Combat Phase of the Strategic Game-Turn, after all surface-to-surface combat has been resolved.

[6.41] Ship units of a Task Force may attack an airfield belonging to the opposing Player by means of shore bombardment. Only ship units in undamaged or D1 status may participate in shore bombardment.

[6.42] In order to execute shore bombardment:
1) the Task Force Marker must be in the same Strategic Map hex as the base unit which the ship units wish to bombard.
2) the Task Force may not have engaged in surface-to-surface combat (whether or not it was intended that the Task Force engage).

[6.43] There is no contact procedure for shore bombardment. If a Task Force satisfies the conditions, then shore bombardment may be executed automatically, followed by automatic retirement.

[6.44] The Player owning the airfield and grounded air units must display the airfield counter with its damage status and grounded air units on the Tactical Display.

[6.45] When all grounded air units and airfield counters are displayed, the attacking Player may allocate his attacks. Any one hex may be chosen to be attacked by a ship unit. Each ship unit may attack all defending units in the hex by means of the ship unit's Surface Attack Strength. Ship units may make three consecutive attacks in one Phase. Ship units may add their Surface Attack Strengths together to form one Surface Attack Strength and apply it against a defending hex.

[6.46] On the Anti-Ship Combat Results Table, cross-index the Strength with a die roll. Apply the result to the defending unit immediately before resolving any other attack. The results are effective as soon as they are applied. Each ship unit may make three such attacks during that Phase; but they may only conduct shore bombardment in one Surface-to-Surface Combat Phase per Scenario. Players must keep track on a piece of scratch paper which ship units participated in shore bombardment.

[6.47] Airbase counters with their Flak Strength, grounded air units and CAP units may not attack ship units during the Surface-to-Surface Combat Phase. CAP units may not be attacked during the Surface-to-Surface Combat Phase.

[6.5] SCUTTLING AND DITCHING
Any unit at any time may be voluntarily eliminated by the owning Player if he so desires. Simply declare the unit eliminated and remove it from play.

[6.52] If a carrier unit is being eliminated, then any and all air units based on that carrier are also eliminated. If a Task Force is being eliminated, then any and all ship units belonging to that Task Force are also eliminated.

[6.53] When a unit is voluntarily eliminated, it counts toward Victory Conditions in the same manner as if it had been eliminated through combat.

[6.6] TOWING
Any Task Force containing a ship unit at D3 status may not move on the Strategic Map unless either that ship unit is scuttled or is towed.

[6.62] A damage-free ship unit of the same or larger class may tow one ship unit in a D3 status (exception, see 6.63). For example, a CA may tow a CL or DD, but not a BB or BC or CV.

[6.63] Carrier units may never tow, but may be towed.

[6.64] A Player may decide whether or not to tow a ship unit at the end of a Tactical Stage or Surface-to-Surface Combat Phase. To assign a towing ship unit, stack the towing ship unit on top of the ship unit which is being towed on the Task Force Display.

[6.65] No matter how many ship units are being towed within a Task Force, and regardless of whether that Task Force contains transport units, that Task Force may only move one Strategic Map hex every even numbered Game-Turn.

[7.0] SEARCH
GENERAL RULE: Search is conducted by air units which are present on the Search Display. The act of placing air units on the Search Display occurs during any Operational Turn, and during the Take-off Phase. It is one of the permitted air operations by which a Player physically takes an air unit from his Carrier Base Status Display and places it on the Search Display. By the exact placement of the air unit on the Display he determines the search pattern of that air unit. Search is resolved during the Search Phase of each Strategic Game-Turn (except Night Game-Turns). Resolving search requires that a Player decide the Strategic positions of his Task Force relative to the Enemy Task Forces, and then compare the search patterns of air units in the Task Force's Search Display with the Search Template, superimposing the pattern on the map.
to find if the Enemy Task Forces lie within the pattern. If an Enemy Task Force lies within a search pattern, the search contact procedure is used to determine whether or not the air units "find" the Enemy Task Force. If a contact is achieved, then the Enemy Player draws a chit which telling him how accurately he must describe the Task Force to the searching Player.

**CASES:**

**[7.1] HOW TO PLOT AND RESOLVE SEARCH**

**[7.11] A search contact is a necessary prerequisite before a Player may send an air strike to attack an Enemy Task Force. You may not attack a Task Force you have not found.**

**[7.12] A Task Force containing a carrier unit which has air units, and an airfield which has air units and which commits at least one air unit to its Search Display is called a search base.**

**[7.13] Each search base uses its own Search Display; air units from a search base may go to that Search Display only. Air units may not go to the Search Display of another search base. Any number of air units from a search base may be used on the Search Display at any one time; however, the American Player may not conduct search with F and T coded air units, the Japanese Player may not conduct search with F coded units. Otherwise, any air unit may be used for search.**

**[7.14] The Search Display is divided into search patterns, each pattern identified by a letter or number corresponding to the area covered by that search.**

**[7.15] To establish a specific search pattern for an aircraft, simply place the air unit on the Search Display in any section. Each of the sections corresponds to a search pattern which can be found on the Search Template.**

**[7.16] To determine whether air units in a given search pattern establish search contact with an Enemy Task Force lying within that pattern, use the Strategic Air Search Table.**

**[7.17] The searching Player does not declare what the search base is or how many air units are being used. He merely states what Task Force is being searched, and rolls the die for that Task Force.**

**[7.2] AREA COVERED BY A SEARCH PATTERN**

**[7.21] The Search Template is used to visualize search patterns. When using the Search Template, the arrow pointing North on the Template must be aligned with the arrow pointing North on the Strategic Map.**

**[7.22] A circle search pattern covers a radius of five hexes from its base on the Strategic Map, for a total coverage of ninety-one Strategic Map hexes. The entire area of the Search Template bounded by A-B-C-D-E-F represents the area covered by the circle search pattern. Any and all opposing Task Forces which lie in or on such a pattern may be searched.**

**[7.23] Example: The circle pattern has one air unit assigned. Near the upper right hand corner on the Strategic Air Search Table, find the proper row, “360 Circle,” and then locate the total number of air units for that search pattern. In this case, use the column headed by “1” in the circle row. When an opposing Task Force is a distance of one hex from the search base, a die roll of one, two or three is needed for search contact, whereas at a search distance of three hexes, the opposing Task Force unit cannot be search-contacted.**

**[7.24] There are six possible fan search patterns. A fan search pattern covers an arc of 120 degrees from the search base (point “Z”) as the point or origin for a total of thirty-six Strategic Map hexes.**

**[7.25] Example: Fan A has one air unit. On the Strategic Air Search Table, find the proper row, “120 Fan” [all fan search patterns use the fan row] and locate the total number of air units in that search pattern. In this case, use the column headed by “1” in the fan row. When an opposing Task Force is a search distance of one hex from the search base, a die roll of one, two, three, four or five is needed for search contact, whereas at a search distance of four hexes, the opposing Task Force cannot be search-contacted.**

**[7.26] There are six possible wedge search patterns. A wedge pattern covers an arc of 60° from the search base for a total of twenty-one Strategic Map hexes.**

**[7.27] Example: Wedge 1 has one air unit. On the Strategic Air Search Table, find the proper row, “60° Wedge” [all wedge search patterns use the wedge row] and locate the total number of air units for that search pattern. In this case, use the column headed by “1” in the wedge row. Notice that when an opposing Task Force is a distance of one hex from the search base, search contact is automatic, whereas at a distance of four or five hexes the opposing Task Force unit can be search-contacted only if the die roll is “one.”**

**[7.28] To find out if air units in a search pattern are able to search for a particular Task Force unit, first find the boundaries of the air units’ search pattern on the Search Template, such that the hex labeled Z corresponds to the hex of the search base. Be sure to align the Search Template such that the arrows pointing North on both the Search Template and the Strategic Map point in the same direction. Then examine the search pattern of each air unit on the Search Display. If any opposing Task Force unit lies in a search pattern, then roll the die for search contact, once for each Task Force. Repeat the procedure for every search pattern to which aircraft have been assigned.**

**[7.29] Airfields are always considered to be search contacted; there is no need to “search” for them.**

**[7.3] SEARCH EFFECTIVENESS CHITs**

Whenever a Task Force has been search-contacted through the procedure for the Strategic Air Search Table, the Owning Player must draw a search effectiveness chit. He must then verbally describe the composition of his Task Force within the guidelines of the chit. This description must state whether or not there are ships in the Task Force (but not how many), whether or not there are transports, and must state how many carriers are present (if any). Many of these chits require that the Friendly Player be absolutely honest in his statement. Other chits allow him to distort the truth a little with regard to the number of carriers present. A few chits allow him to be completely dishonest about the number of carriers, possibly to the point of saying there are no carriers when some are actually present. And finally, a few chits permit the Player to describe a Task Force that doesn’t exist or to deny one that does.

**[7.31] Before the start of a game, a Player should punch out all the search effectiveness chits, place them face down on a table, and mix them thoroughly while they are face down. Out of the**

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**KEY TO SEARCH EFFECTIVENESS CHITS**

**If Chit Reads:**

...at least

---

4 Carriers, then report...

...at least

---

3 Carriers, then report...

...at least

---

2 Carriers, then report...

...at least

---

1 Carrier, then report...

...Zero Carriers, then report...

---

**Report TRUE**

---

4 Carriers

---

3 Carriers

---

2 Carriers

---

1 Carrier

---

**Report Approx +1**

---

3, 4, or 5 Carriers

---

2, 3, or 4 Carriers

---

1 to 5 Carriers

---

1 to 4 Carriers

---

**Report Approx +2**

---

2 to 6 Carriers

---

1 to 5 Carriers

---

1 to 4 Carriers

---

1 to 3 Carriers

---

**Report Error +1**

---

3, 4, or 5 Carriers

---

2, 3, or 4 Carriers

---

1, 2, or 3 Carriers

---

0, 1, or 2 Carriers

---

**Report Error +2**

---

2 to 6 Carriers

---

1 to 5 Carriers

---

0 to 4 Carriers

---

0 to 3 Carriers

---

**Report FALSE**

---

...the presence (or absence) of any number of Carriers and the presence (or absence) of ships and transports regardless of the actual situation. Note that this is the only instance where a Dummy Task Force can be reported as one containing ships or where a Task Force containing ships (of any type) can be reported as a Dummy containing no ships.
thirty chits, twenty should be picked at random and placed into a wide-mouthed cup, like a coffee cup. The remaining ten chits should be placed in another cup and placed to one side. The above procedure should be done in such a way that the exact composition of the chits is unknown to either Player. Whenever a search effectiveness chit must be drawn, it must be drawn from the pool, containing the twenty chits. If the search effectiveness chits from the pool of 20 are exhausted, then the Player may draw chits from the ten chit pool. If this pool is also exhausted, then there is no more search until the following day Game-Turn.

[7.32] The term "ship" means any naval unit, destroyer, cruiser, transport, carrier, etc.

[7.33] Whenever a Task Force is search-contacted, the Player owning that Task Force must blindly draw one search effectiveness chit. The Player must draw a chit such that while he is picking a chit from the pool the other Player may not see which chit is being drawn.

[7.34] A search effectiveness chit provides a Player with the guidelines within which he must describe his Task Force to the opposing Player. See the Key to Search Effectiveness Chits.

[7.35] There are four types of search effectiveness chits: "Report True": The Player must state whether he has ships in the Task Force, whether he has transports in the Task Force, and exactly how many carriers are in the Task Force.

"Report Apprx.": The Player must state whether he has transports in the Task Force, whether he has ships in the Task Force and whether he has ships in the Task Force. In his report, he is allowed to add to or subtract from the actual number of carriers he has any number up to the number shown on the chit, but he may not report zero carriers if any carriers are present.

"Report Error": The Player must state whether he has ships in the Task Force and whether he has transports in the Task Force. If he has at least one ship (of any type) in the Task Force, he may now add to or subtract from the actual number of carriers, any number up to the number shown on the chit. He may state that there are no carriers, even if there are.

"Report False": The Player may state anything he wishes. He may deny that he has ships, transports, or carriers when he really does. He may state that he does have ships, transports and any number of carriers when he doesn't.

[7.36] The Player should not reveal what type of chit he drew. He must only declare whether he has ships, whether he has transports, and a real or fictitious number of carrier units in a Task Force.

[7.37] After the Player has described the Task Force which was search-contacted, he must then place the search effectiveness chit face down under the Task Force Marker which was search-contacted. It is conceivable for a Task Force to be search-contacted more than once in a Scenario. In each case, the search effectiveness chit must be placed face down under the Task Force Marker. If more than one Task Force unit should ever occupy the same Strategic Map hex, make sure that each Task Force unit retains its own search effectiveness chits. The only time either Player may see the search effectiveness chit under a Task Force Marker is when a strike contact is achieved. Until that time neither Player may refer to the search effectiveness chit(s) again during the course of the game.

[7.38] A Player may only draw one search effectiveness chit per Task Force per Strategic Search Phase, no matter how many times that Task Force is search-contacted. It is conceivable that a Task Force may exist in more than one search pattern. Each search pattern may search for a Task Force, but only one search effectiveness chit per Strategic Search Phase may be drawn for that Task Force.

[7.4] RESTRICTIONS ON SEARCH

[7.41] Air units in a search pattern may search for any and all Task Forces of the opposing side.

[7.42] Any number of air units may exist on the same search pattern. In that case, the number of aircraft in that pattern is totalled together.

[7.43] Air units placed on a search pattern section of the Search Display may only be used for that search pattern.

[7.44] Air units on the Search Display are never affected by CAP, Endurance, Air Strike, Flak or surface-to-surface Combat. Air units on the Search Display are affected by Weather and by Night.

[7.45] Air units may get to the Search Display from their search base in either of two ways:
1) Air units may initially be placed on a Search Display at the beginning of any game, but must have originated from a search base.
2) Air units may use take-off procedures to get on the Search Display from their search base.

[7.46] Air units may be removed from the Search Display in either of two ways:
1) They may use landing procedures to get off the Search Display and to land on their base.
2) Air units may be removed from the Display because of night.

[7.47] Air units may freely move from a search pattern to any other search pattern within the same Search Display, but only half of the total number of air units on a Search Display may move at any one time (round fractions up).

[7.48] This transfer may only be accomplished during the Take-off Phase of any Operational-Turn.

[8.0] STRATEGIC-OPERATIONAL INTERFACE

GENERAL RULE: At the conclusion of every Strategic Stage (after Surface-to-Surface Combat, Strategic Movement and Search are completed), the Players may elect to proceed to the Operational Stage. This Stage provides the means whereby the Players can launch air units, land air units, rearm air units, establish search patterns, deploy CAP, and strike at Enemy Task Forces and air bases with air units. Assuming that an air strike actually locates a target, the Operational Stage would lead to one or more Tactical Stages. The only way in which either Player can conduct his air operations is during the Operational Stage. Either Player simply states that he wishes to conduct an Operational Stage. The Operational Stage consists of four successive Operational-Turns (with a possibility of intervening Tactical Stages).

PROCEDURE: For the most part, the physical actions involving the actual shifting of air units from one display or another are conducted simultaneously and secretly. The Players will move through the sequence of each Operational-Turn as they progress through it at the same pace. On some Op-Turns neither Player may desire to conduct air operations. On other Op-Turns only one Player will desire to conduct air operations. When playing the Operational Stage, the Players do not necessarily have to go through all four Operational-Turns. They may proceed through as many as are needed, and then proceed immediately to the next Game-Turn.

Example: A Player may opt to proceed to the Operational Stage to land an air strike because of endrange considerations. Suppose that an air strike, which for clarity's sake is composed of all torpedo air units with an endrange of seven, has already used five Operational-Turns. Since each Strategic Game-Turn equals four Operational-Turns, if the Player does not opt for the Operational Stage, the consequence will be that the entire air strike will be eliminated because it will exceed its endrange.

[9.0] THE OPERATIONAL STAGE

GENERAL RULE: The Operational Stage, unlike the Strategic or Tactical Stages, is not played on a "map." The Operational Stage is played on the Task Force Operations Displays, which are comprised of the Search Display, the Strike Display and the Carrier Status Display. Players are expected to keep hidden their Task Force Operations Displays from the opposing Player. The following sections describe exactly how units are placed upon and moved among the Task Force Operations Displays during the Operational Stage.

CASES:

[9.1] THE CARRIER STATUS DISPLAY

The Carrier (Base) Status Display is used to control and record the status of air units which are on-board a carrier or sitting on an airfield. The Player, by shifting his air units among the boxes of the Display, is changing the deployment of these air units. He may only shift air units within the Carrier Status Display during the Carrier Status Display Phase of each Operational-Turn. A Carrier (or Base) Capacity Marker must be placed in the top spaces of the Carrier Status Display for each carrier (or base) in play.

[9.11] The three Status Boxes in the Carrier Status Display represent three different functional areas of the carrier (or base). In these three Status Boxes, a Player places and moves Friendly air units.
[9.12] The first Status Box is the Hangar Box. Air units in this box are in storage. They are not fueled, and are not armed. An air unit must be moved to the Ready Box before it can be placed in the Flight Deck Box.

[9.13] The second Status Box is the Arm & Fuel Box. Air units in this box are presumably being armed and fueled (or possibly being dearmed and defueled). Air units may move from this box to the Flight Deck Box or to the Hangar.

[9.14] The third Status Box is the Flight Deck Box. Air units in this box are in position to take-off. When a Player places air units in this box he has, in effect, readied them for launch. He may launch air units in this box during the Take-Off Phase of an Operational-Turn; or he may move them out of the Flight Deck Box back to the Arm & Fuel Box, during the Carrier Status Display Phase.

[9.15] Air units may only move from box to box during the Carrier Status Display Phase, and may only move one box at that time.

[9.16] A Player is never required to shift air units within the Carrier Status Display. When he does, he may shift some or all of the units, within the restrictions below.

[9.17] Every carrier has certain restrictions or limits on the number of air units which can be in the Flight Deck Box, in the Arms & Fuel Box, or in the total aboard the carrier (displayed in all boxes) at the end of any Operational Phase. These limits may not be exceeded.

[9.18] While fighters, dive bombers and torpedo planes have different movement and combat values, for purposes of occupying space aboard the Carrier Status Display, arming and fueling and storage, all air units are counted the same. A fighter unit takes no more or less time than a torpedo-bomber unit to arm and fuel. If the capacity of a Flight Deck Box is six units, any six air units in any combination may occupy the box.

[9.19] Air units may operate from land air bases as well as carriers. The same Display is used to show which units are in storage, which are in the Arm & Fuel Box and which are positioned on take-off. The same rules for shifting between Status Boxes apply to land air bases.

[9.20] CARRIER OPERATION RESTRICTIONS

[9.21] Only certain air units may be placed on a carrier. The specific air units which are initially deployed (by the Scenario set-up) aboard a carrier may be any base. For example, in the Midway Scenario, F4F fighter units are deployed aboard the U.S. carriers. F4F units are also deployed on Midway Island airbase. The F4F's deployed on Midway Island airbase may never deploy on to a carrier.

[9.22] Carrier air units may be placed on any carrier, with no penalty. That is, they may take-off from one carrier and eventually land on another. This will usually occur when the original carrier has been damaged or sunk.

[9.23] Carrier air units may use a land base with no penalty. If they do so on a base with similar units (the F4F example above), the Player must keep some record of which were initially carrier borne air units, and which are land air units.

[9.31] Air units may only take-off from the Flight Deck Box of either a carrier unit or an airbase.

[9.32] During the Take-Off Phase only, any air units may take-off from their Flight Deck Box and may go to the Search Display, CAP or Strike Display.

[9.33] To launch air units, take them from the Flight Deck Box and place them on any of the Displays.

[9.34] At take-off, a Player may launch all, some or none of the air units in a Flight Deck Box. Air units which take-off together on the same Phase may be launched in separate Displays. For example, if a Player launches six air units from a carrier, he could place one unit in the CAP Display, one unit in the Search Display and four units in Strike Displays.

[9.35] There is no limit to the number of air units a Player may launch during a Take-Off Phase subject to the capacity of the Flight Deck.

[9.36] Air units on the Search Display and CAP Display may be considered to be in the same Strategic Map hex as the carrier unit or airfield from which they have taken-off; this is true even if an air unit comes from a carrier unit which moves along with its Task Force; consider that the air units also move with the carrier unit.

[9.37] Air units on the Strike Display may or may not be considered to exist on the same Strategic Map hex as a carrier unit or an airbase.

[9.4] LANDING

To land an air unit, the Player removes it from the Search, CAP or Strike Display and places it on the Carrier (Base) Status Display. Landing may only take place during the Landing Phase of an Operational-Turn. Players may land any air units secretly and simultaneously.

[9.41] A Player may not land any air units on a Carrier Status Display if there are any air units located in the Flight Deck Box of that Display.

[9.42] When placing the landing air unit on the Carrier (Base) Status Display, the Player must place the unit on the Arm & Fuel Box or the Hangar Box. It may not be placed on the Flight Deck Box. [A landing air unit is presumed to be low fuel and unarmed regardless of the number of turns it has been in the air, and regardless of whether or not it has participated in combat. Thus, it may not be placed on the Flight Deck Box when it lands.]

[9.43] To signify that an air unit is landing, take all air units which are to land, from any of the Displays and place them either on the Hangar Box or the Arms & Fuel Box of a Carrier Status Display.

[9.44] The Player may land any number of air units from the respective Displays in any order he wishes. They may land on any eligible carrier.

[9.45] All units on the Search Display have the one additional restriction with respect to landing. A Player may land only air units from the Search Display at the rate of half the total number of air units on his Search Display, or three air units per Landing Phase, whichever is greater. Round fractions up. Example: A Player has a total of fifteen air units on the Search Display regardless of search pattern. By the Third Game-Turn he feels that he has located the Enemy Task Force, and decides to land all air units from the Search Display. On the First Operational-Turn of the Third Game-Turn, he could land only eight air units during the Landing Phase, thus leaving a new total of seven air units on the Search Display. On the Second Operational-Turn, he could land four more air units, leaving a new total of three air units on the Search Display. On the Third Operational-Turn, he could land the remaining three air units.

[9.46] Air units in a Search Display or in a CAP Display may land during the Landing Phase of any Operational-Turn of a Day Game-Turn. Air units in a Strike Display may only land during an Operational-Turn in which they are found to be in the same Strategic Map hex as the base upon which they are to land. In other words, air units from a strike cannot land until they return from the strike.

[9.47] Air units may land on any Friendly carrier or airbase within the restrictions below:

1) carrier-based air units may land on either carriers or airbases.
2) land-based air units may land only on airbases. Any air units in violation of the above are eliminated.

[9.48] CAP and Search Return Base

If all the carriers in a Task Force have been incapacitated (D3 or D4), CAP and Search aircraft from that Task Force may land on any other Friendly carrier or base within one hex of their Task Force. Otherwise, the CAP and Search aircraft are eliminated at the beginning of the next Night Game-Turn.

[9.5] CAP [COMBAT AIR PATROL]

On each Task Force Display there is a Display labeled "Air Units on CAP." Air units placed in a CAP Box are presumed to be performing Combat Air Patrol over the Task Force to which they are assigned. Air units in the CAP Box are used in the Tactical Stage by the Player whose Task Force is being attacked.

[9.51] Air units, when placed on the CAP Display, are called CAP units. A Player may place any type of air units—fighters, dive bombers or torpedo—in the CAP Display, but it is recommended that fighters be placed in the CAP Display. There is no limit to the number or type of air units that may exist in a CAP Display.

[9.52] Air units may only perform CAP for a Task Force which contains the carrier from which they were launched.

[9.53] Once placed in a CAP Display, air units, remain there until the Owning Player voluntarily lands them on a Carrier Status Display, or until a Tactical Stage or until a Night Game-Turn occurs (they must land before a Night Game-Turn). The Owning Player does not concern himself with the endurance of CAP air units. CAP units may remain in the CAP Display all day. [In reality, the CAP are not flying around for twenty hours or so. At any given moment a portion of the planes on CAP are landing and refueling. This constant recycling is taken care of and occurs even if the carrier has a strike on its Flight Deck.]

[9.54] CAP units may neither participate in search nor air strike unless those air units are transferred from CAP and reassigned to the Search Display or the Strike Display.

[9.55] If a Tactical Stage occurs, and if the Task Force which has air units in the CAP Display is being attacked, then those CAP units are removed from their CAP Display, and are placed on the Tactical Display (see 11.1).

[9.56] After the Tactical Stage is over, any remaining CAP units, in whatever damage status, are placed back on their original CAP Display.

[9.57] Any CAP unit which engaged in combat during either Air-to-Air Combat Phase of the Tactical Stage must land on a Carrier (Base) Status Display by the end of the first Operational-Turn following the conclusion of the Tactical Stage. Any CAP unit which has not landed is eliminated.
[10.0] AIR STRIKES

GENERAL RULE:
An air strike is a means by which a Player uses his air units to attack enemy targets. An air strike is a routine using the various procedures, displays and rules explained below to simulate the movement of a group of aircraft from a Friendly Task Force, or an airbase, to an Enemy target and return. The actual attack on the Enemy target is accomplished during the Tactical Stage. An air strike is defined as any group of air units, all launched on the same Operational-Turn from a single Task Force, with a common target.

CASES:
[10.1] THE STRIKE DISPLAY
Each Task Force Operations Display contains two Strike Displays, labeled Strike Display Nrs. 1 and 2. In playtesting it was found that two strikes were the maximum number that most Task Forces would ever have in the air at one time.
[10.11] Each Strike Display consists of six Wave Boxes, sequentially numbered one through six, three letter-coded Endurance Tracks, and an Air Unit Return Box.
[10.12] The Strike Display is a playing aid to help organize the number of waves in each air strike, and to keep track of the air waves which missed their target, and the endurance of each air unit while flying.
[10.13] There is no limit to the number of air strikes that may be formed or used during the play of the game.
[10.14] Air units for an air strike are placed on the Strike Display; they are neither placed nor moved on the Strategic Map. Air units from the Strike Display may be placed on the Tactical Map during the Tactical Stage.
[10.15] Air units in an air strike may not be used for Search or CAP unless they are transferred to those Displays.
[10.16] Any and all air units, whenever they are on the Strike Display, have a limited endurance. [If a Player has occasion to operate more than two air strikes at one time from a single Task Force, he can take an unused Task Force Operations Display (presumably corresponding to a dummy Task Force) and use these additional Displays.]
[10.2] FORMING AIR STRIKES
[10.21] Only air units from carrier units and airbases may form air strikes. Air strikes are formed during the Take-Off Phase.
[10.22] To form an air strike, the following procedure is used:
1) During the Take-Off Phase, take any or all air units which are on the Flight Deck Box of the Carrier Status Display and place them on a Strike Display.
2) In placing the air units on the Strike Display, the Player may distribute the air units into one to six waves. Strike wave from a Friendly Task Force or naval force must contain at least one air unit. Example: If a Player has three air units on the Flight Deck, he may place all three on Wave Nr. One, or one air unit each on Waves Nr. One, Two and Three. He may not place air units on Wave Nr. Two without having any air units on Wave Nr. One. He may not "skip" waves. All waves to the right of an occupied Wave Box must also be occupied.
3) Start the air strike's Endurance Tracks.
4) On a piece of scratch paper, identify this air strike, its target Task Force, list its estimated time of arrival, and its rendezvous base.
5) On any subsequent Take-Off Phase, any more air strikes from the same carrier or airbase must be formed on different Strike Displays. Of course, two air strikes may have the same target Task Force, but each air strike must be kept separate record of.
[10.23] There are no restrictions upon the number or type of air units which may exist on a Strike Display or in a wave of that Strike Display.
[10.24] Once an air unit is placed on the Strike Display and in a wave, a Player may not move it at all, unless there is a specific decision to recall the air strike, or if there is a strike contact.
[10.25] A carrier or airbase may form as many or as few air strikes as its wants and whenever it wants. Example: Two air strikes may be formed by a carrier unit on sequential Operational-Turns or on the same Operational-Turn.
[10.26] It is permissible for an air strike to be formed by air units from two or more carrier units which belong to the same Task Force, as long as the air strike is completely formed during a single Take-Off Phase.
[10.27] It is prohibited for a single air strike to be formed by air units from two or more carrier units which belong to different Task Forces, whether or not the Task Forces are in the same Strategic Map hex.
[10.28] It is prohibited for a single air strike to be formed by air units from a carrier and an airbase, whether or not they are in the same Strategic Map hex.
[10.29] Once formed, an air strike may never be subdivided into further air strikes. Once formed, an air strike may never be combined with any other air strike.

[10.3] AIR STRIKE PLOT
When a Player creates an air strike, he must immediately note on a piece of scratch paper the target of the strike (the Enemy Task Force number or Strategic Map hex containing the land target), and the base (Task Force or airbase) that the strike is to return to, if different from the originating base.
[10.31] An air strike may only be plotted against a Task Force on which some search-contact has been achieved, or against any Enemy land airbase. In other words, a Player may not plot a strike against an Enemy Task Force with which he has not made search-contact through the Search Procedure.
[10.32] An air strike may only be plotted to attack one target. If there are several Enemy Task Forces in a single Strategic Map hex, the Player must designate only one of these as the target.

[10.4] RETURN BASE
[10.41] As soon as an air strike is formed, the Player must record a return base for all air units in the air strike. Only one return base may be assigned to an air strike.
[10.42] The return base is any one Friendly Task Force or airbase to which air units of an air strike must return and land on, after either a Tactical Stage, a mission recall, or a wave miss.
[10.43] If a Task Force is designated as a return base, then air units of that air strike may land on any carrier in that Task Force.
[10.44] If an air strike may not land on any carrier or airbase of its return base because of D3 or D4 damage status, then the air strike must still proceed to the hex of its return base. Once in that hex, the air strike is reassigned another return base to which it must proceed directly. If, by chance, there exists no other return base and/or if endurance is exhausted, then those air units are eliminated. Example: Before an air strike had returned to its Task Force, the Task Force was attacked during Surface-to-Surface Combat. All ship units, including all carrier units, were eliminated; hence the air units may not land. The air strike must still proceed to the last hex where its return base was located. Once in that hex, another return base must be reassigned within the endurance of the planes in the strike.
[10.45] Reassigning a return base involves changing the strike plot. This change occurs on the Operational-Turn in which the strike returns to its original return base and finds it unusable.

[10.5] AIR STRIKE MOVEMENT
An air strike moves hex by hex on the Strategic Map from its base hex to the hex containing its target, and then back to its return base. This path is not traced on the Strategic Map. The Player does not physically move anything representing the air strike on the Strategic Map. Instead, he records the position of the strike at the end of each Air Strike Movement Phase of an Operational-Turn on his air strike plot. Naturally, to do this he must visually refer to the Strategic Map.
[10.51] The speed or rate of movement of an air strike is dependent upon its type. Each type of air units composing that strike A strike composed of propeller driven aircraft may move a maximum of two Strategic Map hexes per Operational-Turn, while a strike composed of jet driven aircraft may move a maximum of four hexes per Op-Turn, and a strike composed of helicopters may move one hex per Op-Turn. Naturally, a strike composed of two or more different types, would move at the speed of the slowest component. Note that different tactical Movement Allowances have no bearing on the movement rate of the strike on the Strategic Map.
[10.52] Air strike movement is voluntary. A Player may move any number of Strategic Map hexes within the maximum per Op-Turn. A strike may never exceed its maximum movement rate per Op-Turn.
[10.53] An air strike may move through blocked Strategic Map hexes, coastal and land hexes, and hexes containing Enemy and Friendly Task Forces. The path and pace of movement of an air strike is immaterial and no actual "path" of movement is traced. It doesn't matter what hexes a strike moves through in getting to and from its target. The Player is only concerned with recording where a strike is at the end of every Air Movement Phase.
[10.54] Different Friendly or Enemy air strikes do not interact with one another in any way while in transit. Each air strike has its own individual path and plot. The fact that these paths may coincide at some point is immaterial. [NOTE: A Player should never know of the existence or position of an Enemy air strike until the Enemy Player announces the presence of the strike, usually when he attempts strike-contact on a Friendly target.]
[10.55] On the Op-Turn in which a strike is launched, its maximum movement rate is reduced by one hex. For example, a strike composed of...
propeller driven aircraft is formed on Operational-Turn Two of Game-Turn Three during the Take-Off Phase. During the Air Movement Phase of that same Operational-Turn, it could only move one Strategic Map hex from the box containing its base.

[10.56] When an air strike wants to land on its return base, it must move to the same Strategic Map hex as its return base. There is no movement penalty for landing; however, the air strike may only land during the Landing Phase. Hence, usually an air strike moves to its return base in one Op-Turn, and then lands in the following Operational-Turn.

[10.57] In order to be eligible to attack an Enemy target, an air strike must be in the same Strategic Map hex as the target at the end of the Air Movement Phase of the Operational-Turn.

[10.6] ENDURANCE

All air units have a given endurance which is the number of Op-Turns they can remain in the air without landing. This endurance pertains only to air units which are used in an air strike. Units which are employed in Search or CAP are exempt from endurance considerations. Endurance is measured and controlled by use of the Endurance Track, which is part of each Strike Display. Whenever an air strike is formed, the Player sets the Endurance "clock" (by placing a marker) for each type of aircraft in the strike (usually a fighter, bomber and/or torpedo planes.) Thereafter, at the end of every Air Movement Phase, the Player sets the "clock" to reflect the passage of an Operational-Turn, moving the marker(s) along the Track. Eventually one of two events must occur: either the air units return and land on a base, or time runs out with the removal of the Endurance Marker at the end of the Track (in which case the air units are eliminated).

[10.61] On the Task Force Operations Display there are two Endurance Tracks — one for each Strike Display.

[10.62] Each air unit has a specific endurance rating printed on the air units marker.

[10.64] The endurance rating of an air unit is the maximum number of Operational-Turns that it may exist in the Strike Display. If an air unit has not landed by the end of its endurance limit, then that air unit is eliminated and removed from the game immediately.

[10.65] Each Endurance Track is divided into ten boxes labelled "0" to "9." Whenever an air unit (or group of air units possessing a common endurance rating) is formed into a strike, an Endurance Marker is placed on the appropriate Endurance Track for that type on a numbered box which corresponds to the endurance rating of the air unit. Thus, if the U.S. Player launched several F4F units into a strike, he would place a Marker on the nr. three box of the Track labelled "F." [Note: Each Strike Display has three Endurance Tracks associated with it, labeled fighters, bombers and torpedo bombers. These labels are for convenience — any aircraft type may be placed in any Endurance Track. Most strikes will be composed of several types of air units with differing endurance values. Rarely will a Player launch a single strike that contains four air unit types with differing endurance ratings. If he does, he must contrive a fourth Endurance Track.]

[10.66] If an air unit has an endurance greater than 9, the Endurance Marker is inverted, and is placed in the space on the track corresponding to the second digit (in the one's place) of the air unit's endurance rating. In the Operational-Turn following that in which the inverted Endurance Marker reaches zero, it is moved back to the "9" space on the track, and turned face-up.

[10.67] At the conclusion of every Air Movement Phase of every Operational-Turn, both Players must move all Endurance Markers on all Endurance Tracks one space to the right. Markers which already are on zero are removed from the Display; the endurance of any unit represented by that Marker is exhausted and the air units are eliminated.

Example: Three F4F's and two SBD's are launched in a strike on Operational-Turn One of Game-Turn Two. At launch, a Marker is placed in box three of the Fighter Endurance Track and box five of the Bomber. At the end of the Air Movement Phase of Operational-Turn One, the Fighter Track Marker is moved to box two, the Bomber Track Marker to box four. At the end of the Air Movement Phase of Turn Two, the Fighter Marker is moved to box one, the Bomber Marker to box three. At the end of the Air Movement Phase of Operational-Turn Four, the Fighter Marker is moved to box zero, and the Bomber Marker to box two. At the end of the Air Movement Phase of Operational-Turn Four the Fighter Marker is removed and the Bomber Marker moved to box one. Any F4F's which are still in the Strike Display are eliminated. [Note that the F4F's could land on Operational-Turn Four even though they had zero endurance showing, because the Landing Phase occurs prior to the Air Movement Phase in the Op-Turn sequence of play.] The Strategic Game-Game-Turn Three now intervenes. Then, at the end of the Air Movement Phase of Operational-Turn One of Game-Turn Three, the Bomber Marker is moved to box zero, and at the end of the Air Movement Phase of Op-Turn Two, it is removed.

[10.68] Obviously, if all air units of a given endurance rating land before their endurance is exhausted, the Endurance Marker tracing their flight is removed.

[10.69] Endurance applies only to air units engaged in air strikes. Units engaged in CAP or Search are not constrained by endurance considerations and no endurance record is kept of air units in CAP or Search. These units may be assigned to their Displays virtually indefinitely.

[10.7] CHANGING AN AIR STRIKE PLOT

A Player may never alter the target designation of an air strike plot. He may, however, cancel the target designation of an air strike by removing the target designation from the strike plot. In effect, this aborts (recalls) the air strike. A Player may alter the return base on an air strike plot.

[10.71] A target designation may only be cancelled during the Air Movement Phase.

[10.72] An air strike whose target has been cancelled may not attack any other target. The aborted (recalled) strike must return and the air units must land at a base, cycle through the Arm & Fuel and Flight Deck Boxes and be launched on a new strike before they can again be used to attack a target.

[10.73] The return base of an air strike may be altered, but only during an Air Movement Phase, and only on the Phase that the air strike has moved to the same Strategic Map hex as its originally plotted return base.

Example: A Player launches a strike from one carrier in a Task Force which takes four Operational-Turns to reach the target and return. On the second Operational-Turn, the Friendly carrier is sunk or wrecked by Enemy Action. The Player must still move the strike back to the Task Force which had contained the carrier before he can designate a new return base.

[10.8] AIR UNIT TRANSFER

Air units may transfer from one carrier or airbase to another.

[10.81] To transfer air units between two carriers of the same Task Force, a Player need only launch the air units during the Take-Off Phase of an Operational-Turn, and then land them during the Landing Phase of that same Op-Turn on the other carrier. The normal prerequisites for taking-off and landing must be met. [Note there is no holding box to keep the air units in during the intervening Status Display Phase. Simply place them next to the receiving Carrier Status Display.]

[10.82] To transfer air units between different Task Forces or bases, simply requires a modification of the air strike procedures. In effect, the Player launches a strike at one of his own Task Forces or airbases, again recording endurance, etc., with the target being the receiving Task Force or airbase. The air units move to the receiving base and land just as though they were a returning air strike.

[10.83] In either case, the transferring air units are deemed to land with armament and fuel exhausted. Thus they must proceed through the Arm & Fuel and Flight Deck cycle on their new base before taking-off again.

[10.84] Air units engaged in Search, CAP or Strike may not transfer between these Displays. That is, a Player may not, for instance, take an air unit which is in a Search Display and place it directly into a CAP or Strike Display. He must, instead, land the unit on board a carrier (or airbase), cycle it through the Arm & Fuel and Flight Deck Boxes and then launch it into a new Display.

[10.9] STRIKE CONTACT

At the conclusion of each Air Movement Phase, both Players announce if they have any air strikes in the same Strategic Map hex as their targets. If there are any such, they then proceed to resolve, for each strike and its target, whether that strike contacts its target. If a strike does contact its target, then the Tactical Stage will later ensue to resolve the combat between the strike and the target. If the contact fails, then the strike may still attack its target. The question of whether or not a strike finds its target is resolved using the Strike Contact Table. To use this Table, the Player owning the strike calculates the distance in hexes between the target and the base from which the strike originated. This is always the smallest number of hexes between the two points, counting the hex the target is in, but not the hex the strike's base is in. He then cross-references the distance with the number of waves in the strike and, consulting the Table, rolls a die. If the number of the die roll is equal to or less than the number shown on the Table, the strike is considered to have contacted its target; otherwise, it has failed to contact the target.

[10.91] The distance between a target and the Task Force or airbase in which a strike originated is calculated by counting the shortest distance in terms of contiguous hexes between the Strategic Map hex containing the target (inclusive) and the Strategic Map hex containing the originating Task Force or airbase (exclusive). This distance is calculated in hexes. If the Player announces he has a strike in the target hex. It is determined on the basis of the distance at the time the strike was launched.

[10.92] All possible strike contacts should be resolved before proceeding to the Tactical Stage.

[10.93] Whenever contact is made, the Player owning the contacted Task Force must
immediately state exactly how many carriers, battleships, cruisers, destroyers, etc., are contained in the Task Force. He must also reveal the Search Effective Area and the TF Marker and place them back into the chit pool. If the Task Force is a dummy, he must remove the Task Force Marker from the Strategic Map hex.

[10.94] A strike automatically contacts a land based target, or a Task Force target in a coastal hex, regardless of the distance or number of waves in the strike.

[10.95] A strike may only attempt to contact its designated target as per its strike plot. The presence of other Enemy Task Forces, both in the hex containing the designated target, and in any intervening hexes that the strike may pass through on its movement to and from the designated target are ignored (exception: 10.96).

[10.96] If a strike contacts its target and there are other Enemy Task Forces in the same hex, the Player owning the strike may cancel the attack of the strike and attempt to contact one of the other Task Forces. If he fails to contact one of the other Task Forces, he is considered to have cancelled his target and the strike is recalled. This alternative contact may be attempted even though the other Task Forces have never been successfully searched.

[10.97] Once a Task Force has been contacted, it is considered searched until the next Night Game- Turn. However, all strikes must complete the contact procedure successfully before attacking, regardless of whether some previous strike had successfully achieved contact. Every strike must resolve contact on its target separately.

[10.98] If a strike fails to contact a target, it may attempt to contact that same target on succeeding Operation Turn until it achieves a contact, or until the air units composing the strike run out of endurance and are destroyed. A strike may never switch targets, except as permitted by (10.96).

[11.0] TACTICAL STAGE

GENERAL RULE:
The Tactical Stage can occur at the conclusion of each Operational Turn if an air strike makes contact with a target (Task Force or airbase). The rules which follow will describe how air strike attacks are made. If several strikes are to be made against several targets, then the procedures described must be repeated for each attack. The order in which several strike attacks are made is left to the discretion of the Players. It makes no difference which Player executes his strike attacks first.

CASES:
[11.1] INITIAL SET-UP
The Tactical Display is used to play out the Tactical Stage. It regulates the positioning and movement of the attacking strike aircraft and the defending ship and CAP units. The defending Player (who owns the Task Force or airbase under attack) deploys his units on the Display first. Then the attacking Player (who owns the strike) determines which waves of his strike are initially deployed and where, which wave is considered to have missed the target, and which waves are delayed and might appear on later Tactical- Turns.

[11.2] DEFENDING PLAYER SET-UP
The defending Player takes his ship units from the Task Force Operations Display and air units from the CAP Box of the same Operations Display, and places them on the Tactical Display, subject to the restrictions below.

[11.21] Ships must be placed in non-adjacent hexes, and ships must face the same direction. That is, the bow of all the ships must be aligned in the same compass direction. It is suggested (but not required) that carriers be deployed in the central hexes with other ships ringed around them. The bow of a ship is the top in relation to the printing on the counter.

[11.22] CAP units may be deployed in any hexes (subject to Stacking limitations). At least one-third of the CAP units must be deployed at low altitude, rounding any fraction up. If, for instance, a Player has four CAP units, he must deploy two of them at low altitude.

[11.23] No defending units may be deployed in outer-edge "entry" hexes.

[11.3] ATTACKING PLAYER SET-UP: WAVE ARRIVAL

The attacking Player determines which waves of his strike are deployed for use in the First Tactical Routine (i.e., the first six Tactical-Turns), which wave misses, and which waves are delayed for the second or possibly third Tactical Routine. This determination is called the Wave Arrival Procedure, and is resolved on the Wave Arrival Table. The attacking Player rolls the die. He cross-references the die roll result with the column of the number of waves in the strike. The number or numbers shown at the intersection of line and column tell him exactly which of the numbered waves in the strike arrive. The wave which has the same number as the die roll is considered to have missed. All other waves are delayed. He now takes the air units comprising the wave which missed and places them in the Holding Area. These units may not attack and must return to their base. He removes the air units in the waves which arrive and places them adjacent to the Tactical Display. He groups the air units according to their wave. [He will return to these shortly.] The remaining delayed waves on the Strike Display (which neither arrived nor missed) are then advanced to the right along the Wave Boxes to fill all the vacated spaces so that the remaining waves will again be numbered consecutively, beginning with n.1. Returning to the arriving waves, he rolls the die once again for each wave and places the air units composing that wave on any of the outer edge "entry" hexes along the numbered edge of the Tactical Display corresponding to the die roll.

Example: Assume a given strike is composed of six waves. The attacking Player rolls a "one" on the Wave Arrival Table. This means that Wave Nr. 1 misses (its air units are placed in the Holding Area. Wave Nrs. 2, 3 and 4 arrive; Wave Nrs. 5 and 6 are delayed and advanced along the Wave Boxes so that Wave Nr. 5 becomes nr. 1, and Wave Nr. 6 becomes nr. 2.

[11.31] Once the attacking Player has determined the initial disposition of the strike, play commences with the First Tactical Routine, consisting of six consecutive Tactical-Turns. At the conclusion of the Sixth Tac-Turn, the attacking Player would repeat the wave arrival procedure for any delayed waves, deploying any arriving waves, placing the missing wave in the return box, and further displacing any still delayed waves. To continue the example given above, the Player would have two waves (now numbered 1 and 2) left in the Strike Display. If he rolled a six, Wave Nr. 1 would arrive, and Wave Nr. 2 would be delayed and advanced to Wave nr. 1, necessitating at least a third Tactical Routine.

[11.32] If the Table calls for a wave number to miss and no such numbered wave exists, then the miss result is ignored for that Routine's deployment.

[11.33] It is possible for a one-wave strike (which was successful in contacting its target) to "miss" even though this may seem illogical.

[11.34] If a strike is attacking a land base, or a Task Force in a coastal hex, then the wave arrival procedures are totally ignored. The attacking Player simply takes the air units in the Strike Display and places them on any outer edge "entry" hexes on the Tactical Display.


[11.4] SUCCESSIVE TACTICAL ROUTINES

Once both Players have completed their initial deployment, play commences and proceeds through the end of the First Tactical Routine of six consecutive Tactical-Turns. There can be as many successive Routines as necessary for the attacking Player to dispose of all the waves in his strike and finally to exit his surviving air units from the Tactical Display. Each Routine occurs successively.

[12.0] TACTICAL MOVEMENT

GENERAL RULE:
Air units have a Tactical Movement Allowance expressed in Movement Points. During his Air Movement Phase, the Phasing Player may move his air units one at a time, hex by hex through the grid of hexagons on the Tactical Display, expending one Movement Point per hex entered. He may also cause the air units to change their altitude status by having them climb or dive.

PROCEDURE:
To move a unit, the Player traces a path, hex by contiguous hex, through the hex grid. Each unit is moved individually until the Player has completed moving all the units he desires to move. To signify that a unit is climbing, the Player places a Climb Marker (see 12.5) on the unit and notes on a piece of scratch paper the Tactical-Turn in which the climb begins. To signify that a unit is diving, the Player removes the Climb Marker from the unit. The Climbing and Diving procedures do not require the expenditure of Movement Points. However, a unit may not climb or dive and move during the same Air Movement Phase.

CASES:
[12.1] RESTRICTIONS ON MOVEMENT
[12.11] An air unit expends one Movement Point for each hex it enters. An air unit may not expend more Movement Points than its total Movement Allowance in a single Air Movement Phase. Movement Points may not be "saved" from Tac-Turn to Tac-Turn, nor "loaned" to other units.

[12.12] A Player may only move his air units during his own Air Movement Phase. During his opponent's Air Movement Phase, his units must remain stationary.

[12.13] A Player may move some, none or all of his air units as he sees fit. Movement is always voluntary.

[12.14] Air units may not dive or climb in an Air Movement Phase if they move during that Phase.

[12.15] Air units may enter any hex on the Tactical Display, except that a unit may not enter any of the outer edge "entry" hexes. Ship units do not interfere with air unit movement, nor do opposing air units interfere with each other's movement. Opposing air units may occupy the same hex.
[12.2] STAKING
More than one air unit may occupy the same hex up to the Stacking limits.

[12.21] Stacking limits apply only at the end of a Movement Phase.

[12.22] A Player may have a maximum of three of his air units at a common Altitude Status in a single hex at the end of any given Air Movement Phase.

[12.23] The presence of Enemy air units has no effect on the stacking of Friendly units.

[12.24] Since there are three altitude-states (high, low and climbing) it is conceivable that up to 15 air units could be placed in the same hex, with both Players having three units in the high and low states, and one Player having three in the climbing state.

[12.25] Naval units do not affect air units stacking.

[12.3] ALTITUDE
When air units are on the Tactical Display, they are always considered to be at one of three altitude states.

[12.31] There are three modes of altitude — high, low, and climbing. Units at high altitude are indicated by placing a "High" Marker. There are no other altitude markers.

[12.34] The Movement Allowance of an air unit remains the same, regardless of its altitude status.

[12.4] DIVING
To dive, a Player simply removes the high altitude marker from the air unit. He does this in lieu of moving the air unit hex by hex. The air unit begins the Air Movement Phase at high altitude or in a climb and completes the Phase at low altitude, in the same hex.

[12.41] Only a unit at high altitude, or a unit which was climbing in its previous Air Movement Phase may dive.

[12.5] CLIMBING
To climb, a Player must make a note of the air unit which is to climb, and may not move the unit that Tac-Turn (as a reminder, the Player may use any ship marker of a side not in play as a "climb marker"). He records the Tactical-Turn number in which the climb begins. Ten Tac-Turns later, he places a "High" altitude Marker on the unit. During the intervening Tac-Turns, he may move the unit.

[12.51] Only CAP units may climb. Attacking air units may never climb.

[12.52] Climbing units may dive, but if they do they forfeit any credit for Tac-Turns spent climbing. Ten consecutive Tac-Turns are required for a climbing unit to reach high altitude.

[12.53] There is no Player aid to record climb progress. Players must use scratch paper.

[12.54] Obviously, a unit already at high altitude may not climb.

[12.6] SHIP UNIT FACING AND MOVEMENT
Once placed on the Tactical Display, ship units are never moved, except during the Carrier Facing and Display Phase, during which the defending Player may change the facing of any or all of the carriers present on the Tactical Display. When the facing change is executed, other ship units in close proximity to the carriers may then be required to displace one hex further away from the carrier.

[12.61] Each carrier unit marker has a facing symbol (a triangle). Each carrier unit marker must always face some adjacent hex; that is, the facing symbol must point at an adjacent hex, thus establishing adjacent bow and stern hexes.

[12.62] The defending Player may change a carrier's facing by rotating the unit marker 60° to either the left or right. (That is, it may be turned to face either adjacent hexside.) When he does so, he creates a new set of adjacent bow and stern hexes. He may change the facing of a carrier at the rate of 60° per Tactical-Turn.

[12.63] As the carrier unit is rotated, its facing sweeps an arc of 60°. Any ship unit on the Tactical Display which is within four hexes of the carrier and which is in the area described by the arc is required to displace one hex farther away from the carrier.

[12.64] If this displacement causes the displacing unit to move adjacent to some other ship unit, then the second ship unit must displace in turn in some direction away from the turning carrier, possibly causing a series of further displacements.

[12.65] Carrier units never displace nor may non-carrier ship units move adjacent to them.

[12.66] If a non-carrier unit is required to displace because of the facing of the carrier, and it cannot because to do so would require it to move adjacent to another carrier, it is sunk.

[12.67] If a series of displacements causes a ship unit to leave the area of numbered Tactical Display hexes, it may do so. However, it is considered out of play and may neither be attacked nor fire its Flak. It should be returned at once to the Task Force Display.

[12.68] Facing change is voluntary. A Player is never required to change a carrier's facing (though it is often tactically desirable).

[12.69] Non-carrier ships do not have a facing symbol. However, they all must face in the same direction as the carriers when the ships are initially deployed on the Tactical Display. Their facing may never be changed thereafter, regardless of the facing of the carriers (see 11.21).

[13.0] TACTICAL COMBAT
GENERAL RULE:
Tactical combat is divided into three types: air-to-air, surface-to-air and air-to-surface combat. Each type is resolved using a separate procedure and each occurs during a separate phase of each Tactical-Turn (see Sequence of Play).

CASES:

[13.1] AIR-TO-AIR COMBAT
Air-to-air combat occurs only between opposing units in the same hex and at the same altitude. It occurs at the option and direction of the Phasing Player, during his Air-to-Air Combat Phase. Only the Phasing Player's units may attack. The Phasing Player states which air unit is attacking and which air units are being attacked. He totals the Anti-Air Combat Strength of his attacking units, and subtracts the Anti-Air Combat Strength of the unit being attacked to yield a Combat Differential. He rolls the die and consults the Anti-Air Combat Results Table, cross-referencing the Differential with the die roll to arrive at a result which immediately affects the non-Phasing Player's unit. Each attack is resolved separately.

[13.11] Air units may only attack opposing air units in the same hex and at the same altitude as themselves.

[13.12] Non-Phasing air units must be attacked individually as the objects of separate attacks. No unit may be attacked more than once in the same Combat Phase.

[13.13] Air units attack only once per Friendly Air- to-Air Combat Phase. They may not attack during the Enemy Air-to-Air Combat Phase.

[13.14] Two or three air units may combine their Anti-Air Combat Strengths into one Strength when attacking, but not when defending. Each individual unit which is attacked is resolved as a separate combat.

[13.15] Certain units have Parenthesized or Bracketed Anti-Air Combat Strengths. These units may never attack other air units. The value exists solely to determine the Combat Differential when they themselves are attacked.

[13.16] The Phasing Player is required to first attack any fighter air units which are stacked in the hex at the same altitude before attacking any non-fighter units. After he executes the attacks against the fighters, he may then resolve attacks against non-fighter units.

[13.17] An air unit may only attack an opposing air unit which is in the same hex and altitude state. When executing attacks on units in one altitude state, other units at other altitude states are ignored.

[13.18] No attack is allowed at less than +1 Differential.

[13.19] A unit's Strength may not be split and applied to several attacks against different units.
[13.2] SURFACE-TO-AIR COMBAT
Each ship unit has an anti-aircraft (Flak) strength array which gives the Flak Strength of that ship at different ranges, expressed numerically in Anti-Aircraft (Flak) Strength Points. These ranges are 0-6, 6-9, 9-12, and 12-18 hexes (or short, medium, and long range). Range is measured by counting the narrowest path of hexes between the ship firing Flak (exclusive) and the hex containing the air unit fired at (inclusive).

All air units in a given hex and at the same altitude mode within that hex comprise a Target Group. To use Flak, the Player states which ships are firing at which target group. He totals the Flak Strength of the firing ships. He then attacks each air unit in the target group separately by rolling the die, cross-referencing the roll with the total Flak Strength and applying the result given on the Anti-Air Combat Results Table immediately to each air unit. He repeats this process for each target group he attacks with Flak.

[13.21] A single ship unit may attack only one target group per Flak Attack Phase. It may fire at only one hex and at aircraft only at one altitude state within that hex.

[13.22] An air unit may be attacked only once per Flak Attack Phase.

[13.23] The order in which multiple Flak attacks are made is left to the discretion of the Defending Player.

[13.24] Friendly and Enemy air units are equally vulnerable to Flak. If the defender fires Flak at an air space containing both Friendly and Enemy air units, he must attack all the air units, including his own.

[13.25] When executing Flak attacks, ignore the presence of surface units. Flak may fire through or into hexes containing surface units. Ships and grounded air units are never affected by Flak.

[13.26] While ships have three different printed Anti-Aircraft Attack Strengths, corresponding to the three attack ranges, each ship may attack one target group using only one Anti-Aircraft Attack Strength appropriate to that range.

[13.27] Different ships may attack the same target group from different ranges, but all the ships attacking a target group must combine their Strengths together and make a single attack.

[13.3] AIR-TO-SURFACE COMBAT
Every air unit which possesses an Anti-Ship Combat Strength may attack a ship unit. This case and the following cases will explain how air units attack ships. The method by which air units attack ships varies with the type of air unit (dive bomber, torpedo bomber and level bomber). In all cases, the attacking air unit must move in a required path (the "run in") in order to be eligible to attack a ship. Assuming that the "run in" requirement is met, the attack of an air unit on a ship is executed as follows:

The attacking Player states the Anti-Ship Strength of the attacking air units and subtracts the Defense Strength of the ship under attack, to arrive at an air-to-surface differential. He rolls the die, and, consulting the Air-to-Surface Combat Results Table, he cross-references the result with the differential, and immediately applies any damage result to the ship.

[13.31] An air unit may only attack once per strike. The Players may use OE (ordnance expended) Markers to identify which air units have attacked ships. Before attacking a ship again, the air unit must exit the Tactical Display, return to the Holding Area of the Strike Display, and, through the mechanisms of the Operational Stage, recycle through a Carrier Status Display.

[13.32] An air unit may combine with other air units with identical functional codes at the same altitude and in the same hex to execute a single attack. The Anti-Ship Combat Strengths of the units are combined into a single total Strength.

[13.33] A single ship may be attacked several times in one Air-to-Surface Phase, by as many air units as are eligible to attack it.

[13.34] The attacking Player may arrange the order and sequence of his attacks as he sees fit. He must, however, declare all attacks before executing any. Once declared, an attack must be executed, regardless of the target status. (He may be required to bomb an already destroyed ship.)

[13.4] DIVE BOMBING
The following aircraft types are Dive Bombers: Val's, SBD's and SBV's. When attacking a ship, they must be guided by the following rules.

[13.41] They enter the hex containing the target ship (the target hex) at high altitude, and stop on that hex.

[13.42] They must enter the target hex from an adjacent stern hex of the target ship.

[13.43] During the Movement Phase of the Tactical-Turn following the Tac-Turn on which they entered the target hex, they must dive to low altitude.

[13.44] During the Air-to-Surface Phase of the Tac-Turn in which they dive, they must attack the target ship.

[13.45] On the Tac-Turns following an attack, they may move freely.

[13.5] TORPEDO BOMBING
The following aircraft types are Torpedo Bombers: Kate's, Betty's, TBF's, TBD's, ALBA's and SWDF's. They must be guided by the following rules when attacking ships.

[13.51] They must move to a hex adjacent to the target hex and stop.

[13.52] To reach this adjacent hex, they must have previously moved three hexes in a straight path along the grain of the hexgrid. This path must intersect the target hex. In other words, they must move in a straight line (as though they were going to fly through the target hex), but they stop in a hex adjacent to the target, before flying through the target hex.

[13.53] Torpedo Bombers must attack during the Air-to-Surface Attack Phase of the Tac-Turn in which they stopped adjacent to the target.

[13.54] If a Torpedo Bomber attacks from a bow hex of the target ship, it attacks with its printed Air-to-Surface Strength. If it attacks from a stern hex, it has two points subtracted from its printed Strength.

[13.55] Torpedo Bombers must attack at low altitude. They must enter the Tactical Display at low altitude. [Since they are forbidden to climb, they can never be at high altitude.]

[13.56] Torpedo Bombers in the same hex may combine their Anti-Ship Combat Strengths if they are attacking the same target. If they are not in the same hex, or are not attacking the same target, they may not combine their Strengths.

[13.6] LEVEL BOMBING
B26's and B17's are the only level bombers. When attacking a ship they must obey the following rules.

[13.61] They must enter the hex containing the target at high altitude and then cease movement for that Air Movement Phase.

[13.62] The last six hexes moved through during that Phase must have been in a straight path.

[13.63] They must attack on the turn in which they reach the target.

[13.64] The facing of the target has no effect.

[13.65] A target may not be bombed by level bombers and by any other type of bomber in the same Air-to-Surface Attack Phase.

[13.7] MODIFICATIONS OF CARRIER DEFENSE STRENGTH
All ships have a Defense Strength. This Strength may be reduced because of damage, and in the case of carriers, by the status of air units based on the carrier.

[13.71] If a carrier has at least one air unit in the Flight Deck Box of its Status Display when attacked, its printed Defense Strength is reduced by one Strength Point.

[13.72] If a carrier has at least one air unit in the Arm & Fuel Box of its Status Display when attacked, its Defense Strength is reduced by one Point.

[13.73] These effects are cumulative and are in addition to any reduction caused by damage.

[13.74] A carrier's Defense Strength may be reduced to zero as a result of aircraft in its Status Display, but its Defense Strength may never be reduced below zero.

[13.8] OTHER RESTRICTIONS AND EFFECTS
[13.81] Damage inflicted on a ship by one air attack takes effect immediately before any subsequent attack on that same ship. This includes any modifications to the ship's Defense Strength.

[13.82] The attacking Player's air units may only make attacks during the six turns of the 'Tactical Routine' into which they were placed. For instance, air units which come into play on the first Tactical-Turn of the first Tactical Routine may not make any attacks against either opposing air units or ships after the first Tactical-Turn. Nor may they add their strength to attacks made on Friendly units in other waves. They may, however, be attacked at the option of the defending Player.

[13.83] The attacking Player may not voluntarily delay the entry of air units. If the Wave Arrival procedure specifies that certain air units are placed in entry hexes, then the attacking Player must do so, and he must move them all onto the Tactical Display during the first Tactical-Turn of the Tactical Routine.

[13.84] CAP units may be used on any number of Tactical-Turns to face and intercept any number of successive waves and successive strikes which a Task Force may endure in a single Tactical Stage. They are never forced to land.
[13.9] DAMAGE TO AIR UNITS
Air units are printed on both sides. The front side reflects the values of the air unit at full strength, and the reverse side reflects the values of the air unit after receiving one damage point (approximately half strength). Whenever a full strength air unit receives one damage point, it is flipped over. If a full strength unit receives two damage points, or if a half strength unit receives one or two damage points, then the unit is eliminated from play.

[13.91] For purposes of search, carrier capacity, Strike Display and stacking, etc., a unit is a unit, whether it is at full strength or half strength. A half strength unit always counts as a unit when calculating search, or figuring carrier capacity, or for stacking limitations.

[13.92] A Player may not break up a full strength unit and create two half strength units.

[13.93] A Player may create a full strength unit from two identical half strength units. He may only do this during the Carrier Status Display Phase, with two identical units, in the Hangar Box. Simply flip one of the half strength units over and eliminate the other.

[14.0] TABLES
[See pages 23 and 24, the Search Template, and the Map.]

[15.0] LAND AIRBASES
[Airfields]

GENERAL RULE: With certain exceptions described below, an airbase performs as though it were a carrier Task Force. The Player owning the airbase uses a Task Force (Base) Operations Display to control and regulate air operations from an airbase. Every airbase may be the subject of shore bombardment by Enemy ship units whose Task Force is in the same Strategic Map hex as the airbase. Every airbase may be the subject of an air strike conducted just as though the airbase were a carrier Task Force. In each case, both the airbase and the air units based on it are subject to damage.

CASES:

[15.1] AIRBASE REPRESENTATION AND PROFILE
Airbase locations are shown and numbered on each Strategic Map. There are numbered airbase markers provided, showing the operational capacity of a base.

[15.11] Airbases are not represented on the Strategic Map by a Task Force Marker. Their name and location are printed on the map. Their location is known to both Players.

[15.12] Airbases are considered automatically search-contacted. A strike dispatched at an Enemy airbase automatically contacts the airbase regardless of the distance or number of waves.

[15.13] When attacked by either surface bombardment or air strike, the airbase is represented by the center hex (hex 000) of the Tactical Display. There is no unit-counter representing an airbase similar to the ship unit representing a carrier. This center hex becomes the target for bombarding ships and bombing air units.

[15.2] DISPOSITION OF AIR UNITS GROUNDED ON BASE
When an airbase is attacked, the air units based on the airbase are also subject individually to attack and damage (unlike air units based on a carrier).

[15.21] In setting up the air units for a Tactical Stage, the defending Player takes air units from the Flight Deck Box of the Status Display and places them on the center hex of the Tactical Display. They may stack in excess of three high. He places air units from the Arm & Fuel Box in any hexes adjacent to the center hex. He places air units from the Hangar Box on any hexes he wishes. The attacking Player used to not to know which units are placed in each hex.

[15.22] The defending Player then places any unused counters or markers on top of the grounded air units so that the striking Player can see the location, but not the type or value of the grounded air units.

[15.23] Players will note how the above disposition differs from the attack on a carrier. Air units grounded on a carrier are not exposed to ‘damage’ except when their carrier is wrecked or sunk.

[15.3] AIRBASE CAP AND FLAK
Airbase CAP units are deployed exactly as those for a Task Force. That is, anyplace on the Tactical Display with one-third at low level. Airbase Anti-Aircraft (Flak) Strength is not represented by a counter or marker. Instead, the Scenario instructions will describe for each airbase a Flak Strength. This will be given in multiples of ten Flak Points. For example, Rabaul (Eastern Solomons, 1942) is given a Flak Strength of 4 x 10 Flak Points. Each multiple is located in the center hex and has a range of six hexes. There is no range differentiation. Each multiple has a strength of ten whether firing at ranges of six hexes, three hexes or zero hexes.

[15.31] CAP units are used by the defending Player to attack and damage Enemy air units.

[15.32] Airbase Flak Strength may be used to attack air units within six hexes of the center hex of the Tactical Display. The defending Player, in allocating the airbase’s Flak Strength, allocates the multiples as he sees fit. He may combine the available multiples to attack one target group, or he may distribute them as he sees fit. No multiple may attack more than once per Tactical-Turn.

[15.33] When Flak Strength is halved due to damage, the number of multiples is halved. Example: half of 4x10 is 2x10, not 4x5.

[15.4] AIR ATTACK ON AIRBASE COMPLEXES
Striking air units may attack an airbase and grounded air units. This may be accomplished by either bombing or strafing. Bombing is the same as air-to-surface combat: the attacking Player uses the procedure for either Dive Bombing or Level Bombing to attack the target. Strafing is a variant of air-to-air combat: the attacking Player uses his fighter units to attack grounded air units.

[15.41] Only Level Bombing or Dive Bombing may be used to attack the airbase itself (hex 000). The attacking Player must total the Anti-Ship Combat Strengths of the attacking air units. Using the ‘Ship-to-Base’ line of the Anti-Ship CRT, he finds the proper column and rolls the die and applies any damage to the airbase.

[15.42] Grounded air units in a bombed hex are attacked as separately from the resolution of the attack on the airbase itself. Each air unit in a bombed hex is attacked separately and successively by the total bomb strength.

[15.43] A Player strafes by moving his fighter units (at low altitude only) into a hex containing grounded air units and stopping. Then he may attack one grounded air unit in the hex with the fighters’ Anti-Air Combat Strength just as though the grounded air unit was in the air. A grounded air unit’s Defense Strength is always there, regardless of the unit’s printed Anti-Air Combat Strength. A single strafing unit may attack only one grounded air unit per strafing attack. Two or more strafing units may combine their Strengths into one strafing attack or make separate attacks against separate grounded units in the same hex.

[15.44] A hex, and the grounded units in a hex may only be attacked once per Tactical-Turn by strafing or Level Bombing or Dive Bombing.

[15.45] Strafing does not damage airbases. Strafing against grounded air units in hex 000 does not damage the airbase.

[15.46] Torpedo bombers must use Level Bombing when attacking airbase complexes. The printed Anti-Ship Combat Strength of a torpedo bomber is halved (rounding fractions down) when Level Bombing. A B-17 unit’s Anti-Ship Combat Strength is doubled when bombing an airbase complex.

[15.47] The attacking Player is permitted to initiate an air attack as he sees fit. He may choose his waves, as he sees fit around the Tactical Display outer edge “entry” hexes. He may stagger their arrival as he chooses. But an attacking air unit must make its attack within the six Tours of the Tactical Routine.

[15.48] Attacking aircraft may only bomb once per Tactical Routine. Attacking fighters may strafe once per Tactical-Turn and may strafe on every Tactical-Turn within the six-Turn Routine.

[15.49] Damage sustained by an airbase does not affect air units currently on CAP.

[15.5] SURFACE BOMBARDMENT
Assuming that preconditions outlines in Case 6.4 are met, the ships of a Task Force may bombard an airbase complex. The defending Player deploys just as though the airbase was to be air attacked. Once again, the grounded air units and the center hex representing the airbase are subject to attack and damage. The attacking Player uses the Surface Attack Strength of his ships to bomb. The attacking Player states that he is bombarding a given hex with a given ship or ships. He applies the totalled Surface Attack Strength of those ships against each grounded air unit in the hex individually, one at a time (using the Anti-Ship Combat Results Table), and against the center hex, applying any damage immediately (see 6.4).

[15.6] CONCEALED GROUNDED AIR UNITS
In deploying his grounded air units, the defending Player is allowed to conceal their type and value with an unused counter so that the attacking Player knows only the amount of air units in a given grounded stack, but not what kind. The intent is to force the attacking Player to allocate his bomb ing, strafing and bombardment without knowledge of where the best target lies. Both Players should keep this intent in mind when actually executing each attack.

[15.7] SPECIAL AIRBASE RULES

[15.71] Air units may always land without penalty or restrictions on an airbase, regardless of the damage state of the airbase. Air units may land on an airbase for which it is a Dead damage state.

[15.72] “Zeke” fighters based on Rabaul (hex 0603 of the Strategic Map of the South Pacific) may extend their endurance by two Operational-Turns when sent on a strike to hex 1107 (containing Henderson Field) or hex 1206 (containing Tulagi). In this case, the Anti-Air Combat Strength of the Zeke is reduced by one. (This rule reflects the historical use of Zekes with non-jettisonable auxiliary gas tanks.)
[15.8] DAMAGE REPAIR
Unlike damage to ships or air units, damage to airbases is repairable. This repair is automatic for each airbase, and occurs at the beginning of every Game-Turn. Each airbase will automatically reduce damage by one damage state. For instance, an airbase in a D4 state would be automatically repaired to a D3 state.

[15.81] Automatic repair occurs prior to any Surface Bombardment Phase.
[15.82] Automatic repair applies only to the airbase in its role as an operating airbase and to its designated Flik Strength, which will recover as the damage state lessens.
[15.83] Repair occurs only as a result of damage and at the rate of one Damage State per Game-Turn.
[15.84] Grounded air units are not repairable.

[16.0] TACTICAL STAGE TERMINATION
GENERAL RULE:
The length of the Tactical Stage interval is variable. There may be only one strike or there may be several on any given Turn. Each, of course, must be resolved and concluded before the Tactical Stage is over and play can progress to the next Operational or Strategic Turn. This section will describe how a conclusion is reached in the case of a single strike against a single target.

CASES:
[16.1] AIR UNIT EXIT FROM THE TACTICAL DISPLAY
The attacking Player may exit his air units from the Tactical Display. This involves moving the unit to an outer edge “entry” hex and then physically moving them back to the Strike Display. Essentially, this means that the air units are leaving the target.
[16.11] The air units are simply placed in the Holding Area of their Strike Display. There is no wave organization necessary for a strike which is returning to its base.
[16.12] Air units which move into an outer edge “entry” hex must exit to the Holding Area of the Strike Display.
[16.13] CAP units may not enter an outer edge “entry” hex. An air unit cannot move onto, then back off the Tactical Display in the same Tactical-Turn.
[16.14] With the exception of 16.13, above, the attacking Player may exit his air units from the Tactical Display whenever he wishes. He could, for instance, move an air unit onto the Tactical Display on Tactical-Turn One and exit it on Tactical-Turn Two.
[16.15] When an air unit exits from the Tactical Display it may not return.

[16.2] TACTICAL STAGE TERMINATION
The Tactical Stage is concluded whenever the last attacking air unit of the last strike has vacated the Tactical Display, either by exiting the Display or because of elimination by combat. (Elimination of all defending units also causes termination.)
[16.21] By definition, the attacking air units will have been properly disposed at the conclusion of every strike; i.e., they will either be destroyed or will be in the Holding Area of the Strike Display.
[16.22] The defending units are returned to their Task Force Operations Display at the end of the Tactical Stage. The ships are placed in their box with any damage either noted, or the damage marker retained on the ship unit. The CAP units are returned to the CAP box. The Player noting, or segregating those units which participated in air combat during the strike.
[16.23] Whenever a Task Force is the subject of two or more strikes, the strikes should be resolved successively (in any order desired) and the defending units should be left on the Tactical Display until all strikes are concluded.
[16.24] The defending Player may not reform or redepoly his units between strikes. He can’t reposition his CAP and ship units. The second strike is presumed to follow immediately after the first strike.
[16.25] The attacking Player will exit his air units off the Tactical Display, since the attacking air units are impotent to harm the defender’s units after one Tactical Routine.

[17.0] NIGHT
GENERAL RULE:
Every Sixth Strategic Game-Turn is a Night Turn and is so identified on the Game-Turn Track. During night, certain air operations are prohibited. Night also has an effect on the ability of Players to track Enemy Task Forces.

CASES:
[17.1] RESTRICTIONS ON AIR OPERATIONS
Air units may not fly at night. They can’t search, strike, or perform CAP.
[17.11] Air units which have not landed on a base by night are eliminated.
[17.12] Air units may not take-off at night. Air units may change their status at night; they may be moved between the boxes on the Carrier Status Display.

[17.2] EFFECT OF NIGHT ON SEARCH
Note that in the sequence of play, search occurs before any air operations, therefore both during night and on the first day Game-Turn following a Night Game-Turn it is impossible to have any search occur, since it is impossible for air units to be in a Search Display before 0501 hours.

[17.3] TASK FORCE REGROUPING
During the Strategic Movement Phase of Night Game-Turns, both Players may reorganize their Task Forces, splitting some and consolidating others. If a Player has two or more Task Forces together in a hex during night, he may shift ship units between them, or combine them into one Task Force and a dummy, or he may split one TF into two or more TFs (see 5.5).

[17.4] RECALL OF SEARCH CHITS
At the beginning of the Night game-Turn, both Players take all search chits which have been used and are under Flik Task Force Markers, and place them back in the Search Chit Pool. Both Players will begin the following day without any search results on Enemy Task Forces. They must search for and find the task forces anew before striking them.

NOTE: The sequencing of TF Regrouping and search recall, means, for instance, that TF 4, which you had found yesterday to contain the Enemy’s carriers, may now be a dummy with the carriers split between two new TF’s created in the same hex as TF4, and then again it may not. You will have to search and find out.

[17.5] EFFECTS OF NIGHT ON SURFACE COMBAT
Night has a slight effect on the probability of Surface-to-Surface Combat.

[18.0] THE TACTICAL ABSTRACTION
GENERAL RULE:
The Tactical Abstraction is used in lieu of the previous Tactical Rules to resolve air strike combat. The Abstraction must be used when playing the Modern (post-WWII) Scenarios. It may be used when playing the WWII Scenarios. Essentially, the Abstraction eliminates the Tactical Display as a regulator of play, it eliminates considerations of altitude, facing and the concept of discrete Tactical-Turns.

CASES:
[18.1] TACTICAL ABSTRACT SEQUENCE OUTLINE
Defending Player Initial Set-Up. The defending Player simply places his ship and CAP units on the Tactical Display.
TACTICAL STAGE SEQUENCE
1. Attacking Player Set-Up. The attacking Player executes the normal Ware Arrival procedure to determine which aircraft arrive and which miss.
2. CAP Attack Phase
3. Attacking Player Air Attack Phase.
4. Flik Attack Phase.
5. Air-to-Surface Attack Phase.
6. Termination. Return striking units to Strike Display. Return defending units to Task Force Display.

[18.2] STACKING
[18.21] Ship units are not stacked. Set them up, one unit per hex. Which particular hexes they are placed in makes no difference.

[18.22] CAP units are not stacked. However, striking air units may be stacked (see 18.33). Any number and type of striking air units may be stacked in a single hex. Again, the particular hexes which aircraft are actually placed in makes no difference.

[18.3] Airbase complexes should be set-up as described in Case 15.0.

[18.3] CAP PHASE
The defending Player simply states which CAP units are attacking which Enemy units. The resolution is exactly the same as described in Case 13.0.

[18.31] CAP units may only attack once per Tactical Stage. An air unit may only be attacked once per Tactical Stage.
[18.32] Two or more CAP units may combine their Strengths to attack an Enemy unit.
[18.33] If striking fighter units are stacked with non-fighter units, the fighter units must be attacked by CAP first before any non-fighter units can be attacked.

[18.4] STRIKING AIR ATTACK
The attacking Player simply states which striking fighter units are attacking which CAP units.

[18.41] No attacking fighter may attack more than once per Tactical Stage.
[18.42] No CAP unit may be attacked more than once per Tactical Stage.

[18.43] Attacking fighters may combine their strength in attacks against single CAP units.

[18.44] Fighters stacked with non-fighters may not attack CAP units.

[18.45] A striking fighter may not attack more than one CAP unit.

[18.5] FLAK
The defending Player states which ships are attacking which stack of Enemy air units. Each ship attacks each unit in the stack in turn.

[18.51] The Anti-Aircraft Strengths (Flak) from several different ships may be combined to attack one stack.

[18.52] A ship may only attack one stack of striking air units per Tactical Stage.

[18.53] An air unit may only be attacked by Flak once per Tactical Stage.

[18.54] In the World War II Scenarios, the naval units use their medium range Anti-Aircraft Strength when employed in the Tactical Abstraction.

[18.6] AIR-TO-SURFACE ATTACK
The attacking Player states which stack of air units are attacking which target ships.

[18.61] Air units from different stacks may not combine to attack a single surface target.

[18.62] Air units from the same stack must combine their strengths in attacks against the same target.

[18.63] A ship may be attacked by no more than two different stacks of striking aircraft. Thus, a ship may be attacked twice per Tactical Stage.

[18.64] Level Bombers, Dive Bombers, fighter bombers, and torpedo bombers may combine their strengths in a single attack together. In the Tactical Abstraction, only the Anti-Ship Strength is considered, not the type of unit.

[18.7] PLAYERS’ NOTES
[18.71] No movement, per-se, takes place in the Tactical Abstraction. Instead of moving the fighter units into a hex to attack Enemy units, the Player simply designates the attacks.

[18.72] Likewise, the facing and altitude are irrelevant. There is no altitude penalty for CAP units. The only relevant deployment question is the number of stacks the attacking Player creates.

[18.73] Example: Assume the striking Player’s available strike consists of six bomber units and some fighters against a Task Force consisting of one carrier, other ships and some CAP. The attacking Player could divide the bombers into six one bomber stacks. This would minimize Flak, but, because he cannot combine stacks when attacking, this would possibly weaken his attack on the carrier. He is limited to two attacks per ship, and each attack could be made by only one bomber in this case.

Japanese air strikes. Additionally, the Allies had “coastwatchers” stationed on many occupied islands of the Solomons and Bismarcks, who were able to inform the Americans on Guadalcanal and Tulagi of incoming air strikes and Task Force movements. Practically speaking, this early warning allowed the Americans to reinforce their CAP and prepare their carriers and bases for attack by clearing the deck and securing fuel and munitions. The state of the art did not allow early distant interception, a technique which has since been used to good effect.

CASES:
[19.1] EARLY WARNING, 1942-1943
The Japanese Player must inform the American Player that there is an air strike approaching an American target.

[19.11] This warning comes in the form of a verbal statement, which the Japanese Player makes at the beginning of the Operational-Turn in which his strike will attempt to contact the U.S. target. He will simply state that he has a strike (or strikes), and he specifies the number of units in the strikes.

[19.12] This warning must be made at the beginning of the Operational-Turn prior to the Take-Off Phase.

[19.13] At the instant that the Japanese Player launches any strike (regardless of the target) from either Rabaul or Buin, he must inform the U.S. Player of that fact, stating the number of units in the strike.

[19.2] U.S. RESPONSE
The U.S. response to the early warning will depend on his situation. Obviously, if the intended Task Force does not possess a carrier, there isn’t much he can do. If it does, he will have a Take-Off Phase in which to reinforce his CAP (assuming that he has fighters on the Flight Deck), and he will have a Reorganizational Phase to stow any Arm & Fuel units in the Hangar.

[20.0] WEATHER [Optional]
The existing rules abstract to some extent the presence of weather in the form of clouds, storms, etc. For those who wish to really play meteorologist, the following rules are offered.

GENERAL RULE:
Weather, in the form of storms, is represented on the Strategic Map by blank counters. The initial placement and subsequent movement of these storms is somewhat random. The hex that a storm (blank counter) is in is affected by weather and any naval units in those hexes are also affected by weather.

CASES:
[20.1] INITIAL PLACEMENT
At the start of a Scenario, roll the die. The number rolled will represent the number of storm counters to be deployed. Then, standing some distance [1–2 meters] from the Strategic Map, a Player should pitch the markers onto the Map so that they come to rest someplace on the Map. Then should be adjusted to rest within a definite hex. Or, simply deploy weather markers in hexes 0003, 0505, 0806, 0909, 1101 and 1305. Use weather on maps of South Pacific and Norwegian Sea only.

[20.2] STORM MOVEMENT
Storms move randomly during the Strategic Movement Phase.

[20.21] For each storm, roll the die. If a one results, the storm remains motionless. A two through six means the storm must move (scatter) to some adjacent hex. This is indicated by another die roll. 1 = N, 2 = NE, 3 = SE, 4 = S, 5 = SW, 6 = NW.

[20.22] Storm movement takes place after Task Force movement, so that neither Player knows at the time he plots and moves exactly where the storms will move.

[20.3] EFFECT OF STORMS
When a Task Force is found to be in the same hex as a storm marker, certain effects occur.

[20.31] The Task Force (or base) may not be searched, may not be strike-contacted, and may not be attacked by air units.

[20.32] A Task Force (or base) in a storm hex may neither launch planes nor land planes. Existing CAP, searches or strikes are not affected.

[20.33] Surface-to-Surface combat and shore bombardment are not affected by storms.

[20.34] Storms do not damage ship units. They serve merely to disrupt air operations.

[20.35] Storms do not damage air units, per se. However, air units returning from a strike, which cannot land because of weather, are eliminated if their endurance has expired.

[20.4] DESTRUCTION AND RECREATION OF STORMS
If a storm wanders off the Strategic Map, simply toss it back onto the map as in the initial placement.

[21.0] MISCELLANEOUS UNITS
CASES:
[21.1] TRANSPORTS
Transports, if present, are presumed to contain valuable cargo in the form of troops or supplies. The Scenario instructions will state that a Player will receive a specific number of Victory Points, if he succeeds in unloading a transport in a designated Strategic Map hex. Unloading is automatic and results whenever the Task Force containing the transport remains stationary in the Strategic Map hex for three consecutive Strategic Game-Turns.

[21.2] OILERS (OPTIONAL)
Destroyers were constantly running low on fuel when operating in conjunction with carriers. In fact, to a casual reader it would seem that carrier Task Force commanders spent more time worrying about refueling their screen than about the Enemy. To reflect this concern, a rather high Victory Point level is assigned to oilers and the following optional rule is offered.

[21.21] A destroyer unit must refuel from an oiler at least every three days. To refuel, the Task Force containing the destroyer must coexist in the same Strategic Map hex as the Task Force containing the oiler, for at least two consecutive Strategic Game-Turns.

[21.22] The paperwork involved in implementation of this rule is left to the Players.

[21.3] MINELAYERS AND MINESWEEPERS
The Minelayer (MNL) and Minesweeper (MNSW) units will be important for Victory Awards in some Scenarios, but neither lay nor sweep mines.
[21.4] SEARCH PLANES
The U.S. and Japanese Players are provided with search planes. These units are used strictly for search. One search plane unit equals one air unit. They may not be eliminated in any way except by failure to land at nightfall.

[21.41] The U.S. PBY's must be based on an airbase. But, they are immune to bombing, strafing and shore bombardment.

[21.42] The Japanese search planes are seaplanes. The Japanese ship units, Tone (546) and Chikuma (547), may each base one search plane unit. The Japanese CVS units (570) may each base one search plane unit. The Tone and Chikuma operate their search planes as though they were carriers, with the search unit being deployed in their Task Force's Search Display. The CVS units may only operate as search plane bases by remaining stationary in a Coastal hex.

[22.0] POST-WORLD WAR II [JET AGE] RULES

GENERAL RULE:
Rules for the play of Post-WWII Scenarios differ in many respects from the WWII Scenarios. These reflect the integration of new weapons systems and equipment into the naval environment.

CASES:

[22.1] DEPLOYMENT OF THE SHIP UNITS
Use of the Task Force Markers in the Post-WWII Scenarios is unnecessary. Players may deploy their ship units directly on the Strategic Map, or they may use the T.F. Markers and the T.F. Display for convenience, in lieu of the bulky stacks. In either event, total comprehensive intelligence is presumed, with both Players knowing exactly where all ships and Task Forces are. If Task Force Markers are used, the Enemy Player has the right to know exactly what ships are represented by each Marker.

[22.2] SHIP MOVEMENT
Ships may move one hex per Strategic Game-Turn. All movement must be plotted simultaneously, and is presumed to be executed simultaneously. There is, thus, no change in ship movement, except, obviously, that which is occasioned by the use of individual ship units on the Strategic Map.

[22.3] SEARCH
Search for surface units is not necessary in the modern era. [Search for submarines is treated separately.] The existence and location of Enemy ships is already known. Essentially, all ships are automatically “searched” at all times.

[22.4] AIR UNIT OPERATIONS
Air operations remain unchanged in the Post-War II Scenarios. Take-off, Status Display and landing are the same. Air strikes are conducted in the same fashion, except that the concept of waves is eliminated. An air strike consists, in effect, of only one wave. Search (except for submarines) is eliminated. CAP remains the same. Radar rules are in effect in all Post-War II Scenarios.

[22.41] Air Strike Launch
When launching an air strike, simply place the units on the Strike Display, compose a strike plot, and set the Endurance Markers. There is no need to deploy a strike in waves. The strike plot should specify a particular Enemy ship by name.

[22.42] Air Unit Movement
Air units' movement is unchanged, with the Player recording the position of the strike at the end of each Air Movement Phase. Note that the rate of movement for jet aircraft units is faster; four hexes per turn.

[22.43] Air units with bracketed Anti-Ship Combat Strengths may not attack land airbases (these units are armed with missiles).

[22.5] STRIKE CONTACT
An air strike moves until it arrives in the same hex as the plotted target, whereupon it stops. The Jet Age Strike Contact Table (14.8) is then used in the Strike Contact Phase to determine if the strike finds its target.

[22.51] Note that the number of air units in the strike, in relation to range, determines the probability of the strike finding its target.

[22.52] If a strike contacts its designated target, it automatically contacts all Enemy surface ships in the same hex. If it fails to contact its designated target, then it fails to contact any Enemy surface ships in the hex.

[22.6] TACTICAL ABSTRACTION
The Tactical Abstraction is used to resolve the attack of a strike against a surface target. For purposes of resolving this combat, all surface ships in the same hex are considered to be together. They are all deployed for the Tactical Stage. To simulate the distant interception of CAP, the sequence of the Tactical Abstraction in the Post-War II Scenarios is extended to allow additional Air-to-Air Combat Phases.

[22.61] Tactical Stage Sequence

1. Attacking Player Set-Up
2. CAP Attack Phase
3. Attacking Player Air Attack Phase
4. CAP Attack Phase
5. Attacking Player Air Attack Phase
6. Flak Attack Phase
7. Air-to-Surface Attack Phase
8. Termination

[22.62] Fighter Bombers
Many Jet Age air units (FB) have a non-parental-sized Air-to-Air Strength and an Anti-Ship Combat Strength. That is, they have the capability to act as either fighters or bombers. However, they cannot act as both at the same time. When placed on CAP, an FB is automatically treated as a fighter. When part of an air strike, an FB is automatically considered to be a bomber. However, the striking Player may cause an FB to convert from a bomber to a fighter at any time by simply placing an OE Marker on the unit, to signify that it has jettisoned its bomb load. An FB with an OE Marker is considered a fighter. As a fighter, the FB may not attack surface targets [except to strafe airbases].[As a bomber, an FB may not attack an Enemy air unit, and its printed Air Combat Strength is reduced by two points.

[22.7] EFFECTS OF ANGLED DECKS
U.S. air units may land on the CVN Enterprise (103), Nimitz (104), Kitty Hawk (105) or Forrestal (106) even when there are other air units in the Flight Deck Box of the same carrier.

[23.0] SUBMARINES

GENERAL RULE:
Submarines have different vulnerabilities than surface ships. Submarines are always deployed face-down. When face-down, they are hidden and may not be attacked. They usually are found by air Search procedures analogous to the WWII Search Procedure. Once found, they are turned face-up, and remain face-up for the duration of the Scenario. When face-up, they are vulnerable to attack.

CASES:

[23.1] AIR SEARCH FOR SUBMARINES
Only planes and helicopters designated AS or ASH may search for submarines. This search is conducted using the Search Pattern (14.2) and the Anti-Submarine Contact Table (14.7). Similar to the procedure in Case 7.0, ship units may also search for submarines.

[23.11] Whenever a submarine is search-contacted, it is turned face-up.

[23.2] NAVAL SEARCH FOR SUBMARINES
Only surface units possessing a printed “s” capability, and friendly submarines in the same hex may search for Enemy submarines (see 14.7).

[23.13] Both air and naval search for submarines occurs in the Search Phase of the Strategic Game-Turn.

[23.14] If there is more than one submarine in a hex, each is subject separately in turn to search.


[23.2] AIR STRIKE AGAINST SUBMARINES
Anti-submarine air units (AS and ASH only) may attack only face-up submarines, using the Air Strike and Tactical Abstraction procedures.

[23.21] Face-up submarines may not be attacked by non-anti-submarine air units.

[23.22] Submarines do not possess a flap strength; however, in the same hex as other friendly surface units, Case 22.52 applies, and the submarine may benefit from the flap and CAP (if any) possessed by the surface ships in the hex.

[23.23] When attacked by anti-submarine air units, any submarine has a Defense Strength of three, regardless of damage state. Disregard the printed Strength.

[23.24] Only face-up submarines may be attacked.

[23.3] SURFACE COMBAT AND SUBMARINES
Ship units and friendly submarines may attack face-up submarines during the Surface Combat Phase of the Strategic Game-Turn. This Phase is conducted exactly as in Case 6.0; face-up submarines are treated as though they were surface units for purposes of surface combat. Surface combat between hostile ship units in the same Strategic Map hex is automatic. There is no resolution of intent as in Case 6.1. The resolution of combat takes place as described in Case 6.2.

[23.31] Surface units with an “s” capability double their Surface Attack Strength when attacking a submarine.

[23.32] Face-down (hidden) submarines may attack surface units and face-up submarines. They may not be attacked. They remain hidden and are only unmasked through Search.

[23.4] PACK ICE
Certain hexes on the Norwegian Sea Map are designated as pack ice. Submarines only may enter these hexes. Submarines in a pack ice hex are immune from air search. Only Enemy submarines may search for Friendly submarines in pack ice. Submarines in pack ice are immune from air attack (and are, of course, immune from attack by surface ships).
[24.0] HOW TO SET-UP AND PLAY

GENERAL RULE:
Fast Carriers is played in Scenarios. Each Scenario is a simulation of an historical or hypothetical naval action involving carriers. The Scenario played determines what Strategic Map is used. In effect, each Scenario is a game in itself. Each Scenario will have its own Order of Battle, Special Rules, Objectives and Victory Point Awards. Some rules are common to all Scenarios and are described below.

[24.1] ORDER OF BATTLE
The Order of Battle in each Scenario will assign to each Player his exact ship units and will list the planes assigned to carriers and airbases in terms of Full Strength units. For convenience, the ship units will be grouped into Task Forces, and labeled with a deployment box or area. The actual formation and initial placement of Task Forces is left to the Players. For example, the Japanese Player is given three CV's, four CA's and a number of DD's, and is told they must deploy into or adjacent to hex 1003. He may split these ships into a number of Task Forces, with all the ships assigned to some Task Force and all Task Forces are deployed within the indicated area. He is limited to a total of eight Task Forces for his entire force. Each Player must assign the numbered Task Force Markers to the Task Forces listed in each Scenario. The numbering of Task Forces (and dummy Task Forces) should be random, and not in the same order that the Task Forces are listed in. With the exception of the Japanese Task Forces in Scenario 25.3, Task Forces in the same hex may be combined, and two or more Task Forces can be created from a single Task Force at the beginning of the Scenario.

Each airbase on the map has a number. These numbers correspond to the ID Numbers on the Airbase Capacity Markers to be used on the Base Status Display.

[24.2] VICTORY POINT SCHEDULES
The winner of a Scenario is determined by the count of Victory Points. The Player with the larger total is the winner. Victory Points are awarded to each Player for damage to, and elimination of Enemy ships, for damage to, and elimination of Enemy air units, and for the realization of certain, stated objectives. Victory Points for damaged and eliminated ships and planes are awarded at the end of each Scenario. Players may keep track of damaged and eliminated ships and planes in any fashion they wish. Points for realized objectives are awarded upon realization, or at the end of the Scenario, according to the wording of the Scenario instructions.

[24.21] Victory Point Schedule for Ships
The Victory Point award differentiates between carriers, other ship units with a printed Defense Strength, and ship units with a printed Defense Strength of zero.

CARRIERS (CV, CVL, CVAN):
Sunk - award twice the printed Total Capacity.
With D2 or D3 - award the printed Total Capacity.

SHIPS WITH DEFENSE STRENGTH:
Sunk - award twice the printed Defense Strength.
With D2 or D3 - award one Victory Point.

SHIPS WITH ZERO DEFENSE STRENGTH:
Oilers Sunk - award five Victory Points.
Others Sunk - award one Victory Point.
With D2 or D3 - no Victory Points.

Note that the D1 damage state does not result in the awarding of Victory Points. Example: If the Japanese Player sinks the Yorktown, he would be awarded thirty Victory Points (twice 15, the Total Capacity). If he sunk the Nashville, he would receive five Victory Points, but if the damaged Nashville to a D2 or D3 damage state, he would receive only one Victory Point.

[24.22] Victory Point Schedule for Air Units
An air unit is worth two points if eliminated, and one Point in a D1 [flipped over, Half Strength] state. Search planes do not count for Victory Points. There is no differentiation between types of air units for Victory Points; a "Zeke" is worth the same as a B17.

[24.3] SCENARIO LENGTH
The length of any Scenario is indeterminate, but may not exceed a limit of seven days. Certain objectives will be given each Player to fulfill (or fail to fulfill) within a span of days. These will probably dictate the pace of play. Unless otherwise stated, all Scenarios begin on the first day Turn (0101 hrs.) of day one. A day is composed of five day-turns, followed by one night Game-Turn.

[24.4] AIRBASES
Any Friendly base on the Strategic Map may be used as a base for Friendly aircraft (although air units must initially deploy at the specific bases designated in the Scenarios). The bases which are Friendly to each side are listed below:

[24.41] South Pacific Strategic Map Airbases
U.S. = Cooktown, Port Moresby, Henderson Field
Japanese = Lae, Buna, Rabaul.

[24.42] Central Pacific Strategic Map Airbases
U.S. = Midway
Japanese = none.

[24.43] Sea of Japan Strategic Map Airbases
U.S. = none
North Korean = Simuju, Taechon, Pyongyang, Wonson, Antung.

[24.44] Tonkin Gulf Strategic Map Airbases
U.S. = none
North Vietnamese = Hanoi, Nam Dinh, Vinh, Haiphong.

[24.45] Denmark Strait Strategic Map Airbases
Soviet = Murmansk (off map).

[24.46] Notes
In Scenario 25.2, Buin Airbase and Henderson Field do not exist, and may not be used to base air units. In Scenario 25.4, Henderson Field does exist; Buin does not. In Scenario 25.7, Vladivostok Airbase may not be used to base air units, nor may it be attacked. In Scenario 25.8, Chai Lai Shi and Yai Hsein Airbases may be activated, at the North Vietnamese Player's option (see 24.86).

[24.47] Victory Points for Airbase Damage
Unless specifically stated in the Scenario Objectives and Victory Awards Section, a Player does not receive any Victory Points for attacking and damaging an Enemy airbase. Of course, he may still wish to attack the base to attempt to damage any air units based there.

[24.5] POST-WORLD WAR II SCENARIOS
Scenarios 25.7, 25.8 and 25.9 are Post-World War II Scenarios; all others are WWII Scenarios.

[24.6] EXITING THE MAP
Task Forces may exit the map during the Strategic Movement Phase. The Task Force must begin the Phase in a hex adjacent to the map edge. The Player simply plots "exit." Units which exit the map may not return and are out of play. Task Forces containing carriers may not exit from the map if they are within five hexes of any Enemy Task Force.

[25.0] THE SCENARIOS

[25.1] PEARL HARBOR, 7 Dec. '41 [Solitaire]

[25.11] JAPANESE VICTORY CONDITIONS
In order for the Japanese Player to win, all eight of the US Battleships must either be sunk or in a D3 state at the end of the Tactical Routine.

[25.12] JAPANESE ORDER OF BATTLE
These units are deployed in the outer edge "entry" hexes of any of the numbered edges on the Tactical Display:

U.S. CA units are used to represent these ships, which are deployed in the specified Tactical Display hexes, and may not move or change facing:
Nevada (021, Hex 310)
Arizona (022, Hex 210)
West Virginia (023, Hex 211)
Tennessee (024, Hex 110)
Oklahoma (025, Hex 120)
Maryland (026, Hex 000)
California (027, Hex 241)
Pennsylvania (028, Hex 534)

[25.14] SPECIAL RULES
The Strategic Map is not used; play commences with the beginning of a Tactical Routine. The maximum length of this scenario is one Tactical Routine (six Tactical-Turns). The U.S. ship units may not attack during the first four Tactical-Turns of the Tactical Routine. On turns five and six, US ship units may attack, but different ships may not combine their Flak Attack Strengths in attacks on the same target. A torpedo attack may not be made on any ship unit from a hex to the left of that ship unit. The ship unit in hex 534 may not be torpedo-attacked at all. Bow and stern hexes are not differentiated, since the targets were not moving. Thus, for purposes of torpedo attacks, all hexes adjacent to a ship are considered bow hexes; for purposes of Dive Bombing attacks, they are all considered stern hexes.

[25.2] CORAL SEA, 8 May '42

[25.21] JAPANESE OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the Japanese Player receives:
a) 5 Victory Points for every transport unit (TRANS) he has in hex 1205 at the conclusion of Game-Turn Three.
b) 5 Victory Points for every transport unit he has unloaded in hex 0106 at the conclusion of Game-Turn Twenty-Four.

[25.22] U.S. OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the U.S. Player receives 3 Victory Points for every Japanese transport he sinks, instead of the normal one Victory Point awarded per transport.

[25.23] U.S. ORDER OF BATTLE
Task Force — in or adjacent to hex 1108: Yorktown (002), 4 (34F), 6 (3BD), 2 (2TB)
Minneapolis (021)
New Orleans (022)
Astoria (023)
Chester (024)
Portland (025)
4 DD's (077 — 079, 081)
4 DD's (064 — 067)
[25.34] JAPANESE ORDER OF BATTLE

**Task Force — in hex 1005:**
- Akagi (503) 3(Zeke), 4(Val), 4(Kate)
- Kaga (504) 5(Zeke), 4(Val), 5(Kate)
- Kiryu (505) 4(Zeke), 3(Val), 4(Kate)
- Soryu (506) 4(Zeke), 3(Val), 3(Kate)
- Haruna (521)
- Kirishima (522)
- Tone (546)
- Chikuma (547)
- Nagara (559)
- 11 DD’s (581 — 589, 591, 592)

**Task Force — in hex 1005:**
- 3 OILER’s (651 — 653)
- 1 DD (593)

**Task Force — in hex 0604:**
- Hosho (513) 1(Kate)
- Yamato (527)
- Mutu (525)
- Nagato (526)
- Sendai (564)
- 7 DD’s (628, 629, 631 — 635)
- 5 DD’s (619, 621 — 624)

**Task Force — in hex 0604:**
- Nishin (574)
- Chihoda (573)
- 1 DD (626)

**Task Force — in hex 0709:**
- Zuikio (512) 2(Zeke), 2(Val)
- Kongo (524)
- Hiei (523)
- Atago (533)
- Chokai (534)
- Myoko (531)
- Haguro (532)
- Yura (558)
- 8 DD’s (599 — 601, 602)
- 2 OILER’s (654, 655)

**Task Force — in hex 0809:**
- Suzuya (535)
- Kumano (536)
- Mogami (537)
- Mikuma (538)
- 2 DD’s (603, 604)

**Task Force — in hex 0809:**
- Jintan (553)
- 10 DD’s (605 — 609, 611 — 615)
- 15 TRANS (657 — 659, 661 — 669, 671 — 673)

**Task Force — in hex 0809:**
- Chitose (572)
- Kamikawa (571)
- 2 MNYL’s (747, 748)
- 1 MNSW (765)
- 1 DD (627)

**[25.35] STRATEGIC MAP**

The Strategic Map of the Central Pacific is used in this Scenario.

**[25.33] U.S. ORDER OF BATTLE**

**Task Force — in any hex east of hexrow 1100:**
- Yorktown (003) 6(F4F), 6(SBD), 2(TBD)
- Enterprise (004) 5(F4F), 6(SBD), 2(TBD)
- Hornet (015) 4(F4F), 6(SBD), 2(TBD)
- Astoria (023)
- Portland (025)
- New Orleans (022)
- Minneapolis (021)
- Vincennes (028)
- Northampton (029)

Pensacola (027)
Atlanta (045)
8 DD’s (604 — 609, 671, 672)
1 DD (605)
2 DD’s (651, 652)
6 DD’s (677 — 679, 681 — 683)

**Midway**
- 3(F2A), 1(F4F), 2(SBU), 3(SBD), 1(B26), 3(B17), 2(PBY)

[25.43] U.S. ORDER OF BATTLE

**Task Force — in or adjacent to hex 1506:**
- Saratoga (006) 6(F4F), 6(SBD), 3(TBF)
- Minneapolis (021)
- New Orleans (022)
- 4 DD’s (677 — 679, 681)
- 1 DD (605)

**Task Force — in or adjacent to hex 1506:**
- Enterprise (004) 6(F4F), 6(SBD), 3(TBF)
- North Carolina (011)
- Portland (025)
- Atlanta (045)
- 3 DD’s (664 — 666)
- 2 DD’s (682, 683)
- 1 DD (605)

**Task Force — in or adjacent to hex 1409:**
- Wasp (008) 6(F4F), 6(SBD), 3(TBF)
- San Francisco (033)
- Salt Lake (034)
- San Juan (046)
- 3 DD’s (667 — 668)
- 2 DD’s (673, 674)
- 1 DD (604)
- 1 DD (605)

**Henderson Field**
- 3(F4F), 4(SBD), 4(PBY)

[25.44] JAPANESE ORDER OF BATTLE

**Task Force — in or adjacent to hex 1304:**
- Mutsu (525)
- Atago (533)
- Myoko (531)
- Haguro (532)
- Maya (539)
- Takao (541)
- Yura (558)
- Chitose (572)
- 9 DD’s (581 — 589)

**Task Force — in or adjacent to hex 1103:**
- Aoba (542)
- Furutaka (545)
- Kimugasa (544)
- Chokai (534)
- Jintan (553)
- 5 DD’s (591 — 595)
- 3 DD’s (616 — 618)
- 2 MNYL’s (747, 748)

**Task Force — in or adjacent to hex 1203:**
- Shokaku (501) 5(Zeke), 2(Val), 3(Kate)
- Zuikaku (502) 4(Zeke), 5(Val), 3(Kate)
- Ryujo (514) 3(Zeke), 3(Kate)
- Kirishima (522)
- Hiei (523)
- Suzuya (535)
- Tone (546)
- Kumano (536)
- Chikuma (547)
- 11 DD’s (599, 601 — 609, 611)
- 1 DD (638)
- 1 DD (619)

**[25.4] EASTERN SOLOMONS, 24 Aug. `42**

**U.S. OBJECTIVES**

AND VICTORY POINT AWARDS

In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the U.S. Player receives:
- 10 Victory Points if Japanese MNLY units never enter hex 1106 during the course of the game.
- 1 Victory Point at the end of every Game-Turn in which Henderson Field is not in a D4 state.

**[25.42] JAPANESE OBJECTIVES**

AND VICTORY POINT AWARDS

In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the Japanese Player receives:
- 10 Victory Points for each MNLY unit in hex 1106 at the conclusion of Game-Turn Twelve.
- 2 Victory Points at the end of every Game-Turn in which Henderson Field is in a D4 state.

**[25.43] U.S. ORDER OF BATTLE**

**Task Force — in or adjacent to hex 1506:**
- Saratoga (006) 6(F4F), 6(SBD), 3(TBF)
- Minneapolis (021)
- New Orleans (022)
- 4 DD’s (677 — 679, 681)
- 1 DD (605)

**Task Force — in or adjacent to hex 1506:**
- Enterprise (004) 6(F4F), 6(SBD), 3(TBF)
- North Carolina (011)
- Portland (025)
- Atlanta (045)
- 3 DD’s (664 — 666)
- 2 DD’s (682, 683)
- 1 DD (605)

**Task Force — in or adjacent to hex 1409:**
- Wasp (008) 6(F4F), 6(SBD), 3(TBF)
- San Francisco (033)
- Salt Lake (034)
- San Juan (046)
- 3 DD’s (667 — 668)
- 2 DD’s (673, 674)
- 1 DD (604)
- 1 DD (605)

**Henderson Field**
- 3(F4F), 4(SBD), 4(PBY)

**[25.44] JAPANESE ORDER OF BATTLE**

**Task Force — in or adjacent to hex 1304:**
- Mutsu (525)
- Atago (533)
- Myoko (531)
- Haguro (532)
- Maya (539)
- Takao (541)
- Yura (558)
- Chitose (572)
- 9 DD’s (581 — 589)

**Task Force — in or adjacent to hex 1103:**
- Aoba (542)
- Furutaka (545)
- Kimugasa (544)
- Chokai (534)
- Jintan (553)
- 5 DD’s (591 — 595)
- 3 DD’s (616 — 618)
- 2 MNYL’s (747, 748)

**Task Force — in or adjacent to hex 1203:**
- Shokaku (501) 5(Zeke), 2(Val), 3(Kate)
- Zuikaku (502) 4(Zeke), 5(Val), 3(Kate)
- Ryujo (514) 3(Zeke), 3(Kate)
- Kirishima (522)
- Hiei (523)
- Suzuya (535)
- Tone (546)
- Kumano (536)
- Chikuma (547)
- 11 DD’s (599, 601 — 609, 611)
- 1 DD (638)
- 1 DD (619)
Rabaul 6(Zeke), 3(Val), 9(Betty) (4x10 Flak Points)

[25.45] STRATEGIC MAP
The Strategic Map of the South Pacific is used in this Scenario.

[25.46] SPECIAL RULES
The maximum length of this Scenario is three days (eighteen Game-Turns).

[25.5] SANTA CRUZ, 26 Oct. '42

[25.51] U.S. OBJECTIVES AND VICTORY POINT AWARDS
There are no additional Victory Points awarded beyond those for damage to and destruction of Enemy forces.

[25.52] JAPANESE OBJECTIVES AND VICTORY POINT AWARDS
There are no additional Victory Points awarded beyond those for damage to and destruction of Enemy forces.

[25.53] U.S. ORDER OF BATTLE
Task Force — in or adjacent to hex 1406: Enterprise (004) 6(F4F), 6(SBD), 3(TBF)
South Dakota (012)
Portland (025)
San Juan (046)
6 DD’s (056 — 059, 061, 062)
1 DD (064)
1 DD (052)

Task Force — in or adjacent to hex 1406: Hornet (005) 6(F4F), 6(SBD), 3(TBF)
Northampton (029)
Pensacola (027)
San Diego (046)
Juneau (048)
4 DD’s (065 — 068)
1 DD (077)
1 DD (063)

Task Force — in hex 1109: Washington (013)
Helena (044)
Atlanta (045)
4 DD’s (073 — 076)
1 DD (069)
1 DD (054)

Henderson Field 4(F4F), 3(SBD) (4x10 Flak Points)

[25.54] JAPANESE ORDER OF BATTLE
Task Force — in hex 1003:
Junyo (515) 4(Zeke), 3(Val), 2(Kate)
2 DD’s (581, 582)

Task Force — in hex 1003:
Atago (533)
Takao (539)
Myoko (531)
Maya (541)
Isuzu (561)
6 DD’s (583 — 586)

Task Force — in hex 1003:
Kongo (524)
Haruna (521)
6 DD’s (590, 591 — 595)

Task Force — in hex 0702:
1 DD (619)
4 OILER’s (651 — 654)

Task Force — in or adjacent to hex 1102:
Shokaku (502) 3(Zeke), 3(Val), 4(Kate)
Zuikaku (501) 5(Zeke), 5(Val), 3(Kate)
Zuilo (512) 3(Zeke), 1(Kate)

Kumano (536)
1 DD (638)
7 DD’s (596 — 599, 601 — 603)

Task Force — in or adjacent to hex 1102:
Hiei (523)
Kirishima (522)
Tone (546)
Chikuma (547)
Suzuwa (535)
Nagara (550)
7 DD’s (604 — 609, 611)

Task Force — in hex 0804:
Chokai (534)
Yura (558)
2 DD’s (639, 641)
2 DD’s (636, 637)

Rabaul 13(Zeke), 4(Val), 3(Kate), 4(Betty) (4x10 Flak Points)

Buin 3(Zeke) (2x10 Flak Points)

[25.55] STRATEGIC MAP
The Strategic Map of the South Pacific is used in this Scenario.

[25.6] NORTHERN SOLOMONS, 1943

[25.61] U.S. OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the U.S. Player receives:
a) 10 Victory Points for every Game-Turn in which Buin Airbase is in a D4 state.
b) 50 Victory Points for every Game-Turn in which Rabaul Airbase is in a D4 state.

[25.62] JAPANESE OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the Japanese Player receives 30 Victory Points for every Game-Turn in which Henderson Field is in a D4 state.

[25.63] U.S. ORDER OF BATTLE
Task Force — in or adjacent to hex 0910:
Saratoga (007) 6(F4F), 6(SBD), 3(TBF)
Victorious (401) 6(Seaf), 2(Alba), 2(Swdf)
Indiana (014)
Helena (044)
Honolulu (043)
San Diego (047)
6 DD’s (064 — 069)
2 DD’s (054, 055)
2 OILER’s (091, 092)

Henderson Field 12(F4F), 9(SBD), 6(TBF), (6x10 Flak Points) (6x10 Flak Points)

[25.64] JAPANESE ORDER OF BATTLE
Task Force — in or adjacent to hex 0801:
Zuikaku (501) 4(Zeke), 3(Val), 4(Kate)
Zuilo (512) 3(Zeke), 3(Kate)
Junyo (515) 4(Zeke), 3(Val), 2(Kate)
Kongo (524)
Haruna (521)
Tone (546)
Chikuma (547)
Myoko (531)
Haguro (532)
Sendai (564)
6 DD’s (581 — 585)
2 DD’s (636 — 637)
2 OILER’s (651, 652)

Rabaul 8(Zeke), 2(Val), 1(Kate), 5(Betty) (4x10 Flak Points)

[25.65] STRATEGIC MAP
The Strategic Map of the South Pacific is used in this Scenario.

[25.7] ACTION OFF KOREA

[25.71] UNITED NATIONS OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the U.N. Player receives four Victory Points for every Game-Turn in which any North Korean base is in a D4 state (maximum bonus of four Victory Points per Game-Turn).

[25.72] NORTH KOREAN OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the North Korean Player receives:
a) 50 additional Victory Points if any one U.S. ship unit receives any damage at all (D1 or higher),
b) 50 Victory Points if Pyongyang Airbase is in a D2, D1 or undamaged state at the end of the Scenario.

[25.73] U.N. ORDER OF BATTLE
Valley Forge (101) 4(F4F), 2(F2H), 6(A1)
Boxer (102) 4(F4F), 2(F4H), 6(A1)
Triumph (402) 3(Sfry), 3(Frty), 2(F4U)
Rochester (111)
Juneau (112)
Belfast (411)
12 DD’s (121 — 129, 131 — 133)

[25.74] NORTH KOREAN ORDER OF BATTLE
Sinuju (6x10 Flak Points)
Taechon (6x10 Flak Points)
Pyongyang (6x10 Flak Points)
Wonsan (6x10 Flak Points)
Any Base(s): 9(M15), 4(TU2)

[25.75] STRATEGIC MAP
The Strategic Map of the Sea of Japan is used in this Scenario.

[25.76] SPECIAL RULES
U.N. ship units may be deployed in any all-sea hex at the beginning of the game. The U.N. Player must let the North Korean Player know the location of each ship unit at all times. Location of North Korean air units is not disclosed. Vladivostok Airbase may not be used; Antung and Vladivostok Airbases may not be attacked in any way. No North Korean airbases may be attacked by Shore Bombardment. The maximum length of this Scenario is three days (eighteen Game-Turns).

[25.8] ACTION IN THE TONKIN GULF

[25.81] U.S. OBJECTIVES AND VICTORY POINT AWARDS
In addition to Victory Points for damage to and destruction of Enemy aircraft, the U.S. Player receives:
a) 20 Victory Points per Game-Turn for every North Vietnamese airbase that is in a D4 state,
b) 50 Victory Points per Game-Turn for every Chinese airbase that is in a D4 state (see 25.86).

[25.82] NORTH VIETNAMESE OBJECTIVES AND VICTORY POINT AWARDS

There are no additional Victory Points awarded to the North Vietnamese Player beyond those for damage to and destruction of Enemy forces.

[25.83] U.S. ORDER OF BATTLE

Enterprise (103) 8(F4), 4(A4), 2(F8)
Long Beach (113)
Bainbridge (141)
Truxton (142)
3 DD's (134 - 136)

[25.84] NORTH VIETNAMESE ORDER OF BATTLE

Nam Dinh 4(M21), 2(M17)
(6x10 Flak Points)
Hanoi 3(M21), 7(M17)
(6x10 Flak Points)
Chai Lai Shi 9(M19), 6(L28)
(4x10 Flak Points)
Vinh
(6x10 Flak Points)
Haiphong
(6x10 Flak Points)
Yai Hsein
(4x10 Flak Points)

[25.85] STRATEGIC MAP

The Strategic Map of the Tonkin Gulf is used in this Scenario.

[25.86] SPECIAL RULES

U.S. ship units may be deployed in any all-sea hex at the beginning of the game. The U.S. Player must let the North Vietnamese Player know the location of each ship unit at all times. Location of North Vietnamese air units is not disclosed. Chai Lai Shi and Yai Hsein are Chinese Bases, as are air units based on them. North Vietnamese Player may use Chinese air units to attack the U.S. fleet, but if he does, the U.S. Player may attack the Chinese bases. North Vietnamese air units may not be based on Chinese airbases, nor may Chinese air units be based on North Vietnamese airbases. The maximum length of this Scenario is three days (eighteen Game-Turns).}

[25.9] ACTION IN THE DENMARK STRAIT

[25.91] U.S. OBJECTIVES AND VICTORY POINT AWARDS

In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the U.S. Player receives 50 Victory Points if he has a carrier in hex 1502 at the end of the Scenario.

[25.92] SOVIET OBJECTIVES AND VICTORY POINT AWARDS

In addition to Victory Points for damage to and destruction of Enemy ships and aircraft, the Soviet Player receives 20 Victory Points if no U.S. carrier is in hex 1502 at the end of the Scenario.

[25.93] U.S. ORDER OF BATTLE

Task Force — in or adjacent to hex 0309:
Nimitz (104) 4(F14), 6(A7), 2(A6), 2(S3), 15(H3)
Long Beach (113)
4 DDG's (151 - 154)
1 DD (139)
1 DD (137)
Task Force — in hex 0311:
Kitty Hawk (105) 4(F4), 4(A7), 2(A6), 2(S3)

[25.94] SOVIET ORDER OF BATTLE

Task Force — in hex 1401:
Kiev (801) 4(Free), 4(Horn)
Kara (811)
Kresta (812)
Krivak (821)
Kashin (822)
Kalinin (823)
Kotlin (824)
2 DD's (831, 832)
Task Force — in hex 1303:
Kresta (813)
1 DD (833)
Submarines — in any even-numbered hexes:
3 SSGN's (841 - 843)
2 SSGN's (844 - 845)
2 SSN's (851 - 856)
Murmansk 2(M25), 3(TU22), 3(TU128), 3(SU19)

[25.95] STRATEGIC MAP

The Strategic Map of the Denmark Strait is used in this Scenario.

[25.96] SPECIAL RULES

The U.S. Player deploys first. Soviet Player may not deploy submarines adjacent to U.S. Task Forces. U.S. Player may not make any attacks until Soviet units attack first, or until Game-Turn Three, whichever comes first. Only Soviet air units may enter Murmansk. Entering or exiting Murmansk counts as moving three normal Strategic Map hexes.

[26.0] DESIGNER'S NOTES

Fast Carriers was designed and developed primarily to simulate the four carrier battles of 1942, between the navies of Japan and the United States. These four battles confirmed a revolution in naval warfare, a revolution that saw the aircraft carrier supplant the battleship as the modern capital ship.

The designer's intent was to place the Player not in just one role, but three: first, that of a Nimitz or Yamamoto concerned with overall strategic dispositions; second, that of a Nagumo or Fletcher, concerned with the actual carrier-air operations (and the fundamental timing of attack and defense); and, third, that of a Wtlhelm or Shimazaki, concerned with the flight to, and attack on, the enemy fleet.

It was immediately apparent that it would be impossible to fit all three roles into the same play sequence and map. The most important role was the second, that of Task Force commander. The decisions of Nagumo or Spruance or Fletcher or Hara really decided who won the carrier battles. And these decisions all basically revolved around one question: what was the best use, at any given time, to which the Task Force's aircraft assets could be put? How many planes should be devoted to search, how many to CAP, and how many to strikes? Assuming positive target information, would it be better to dispatch an immediate strike, or wait an hour or so for more planes to be prepared? Was it wise to send a large strike? Was it wise to send a large strike? Would the hostile base be bombed with everything or should the enemy carriers be found first?

The design problem was how to portray this decision making process. First, a time frame of an hour was fixed for the Operational-Task. This represented the time it took to prepare and to launch the full launch capacity of planes, and form it into a strike. Within the Op-Turn, the Player would be restricted only to dealing with his air units, allocating some to some function or status. The Strategic Game-Turn was conceived to summarize naval events encompassing four hours of time. This was nothing but naval movement. Originally, search was to be a specific operation conducted every Operational-Task, with each Player actually recording the path of each searching unit in a method analogous to the strike procedure. This proved completely unworkable as Players would spend at least an hour per Op-Turn doing nothing but playing hide and seek. This led to the search display arrangement, an abstracted search contact procedure. Even this proved too time consuming, and the decision was made to abstract search even further, placing it in the Strategic-Task where it need be executed only once per four Op-Turns.

The next step was to eliminate endurance considerations for search and CAP, since it was found much too time consuming to track which CAP planes had to refuel on which Turn, or what search planes had to return. We just assumed that a competent air staff would make these calculations.

More than most games, Fast Carriers requires care and trust between the Players. The most important decisions are made in secret and executed in secret. It is all too easy to cheat. It is also easy to make an honest error. Frankly, the game is not designed for cut-throat play. It is also a game with a real learning curve. The developer's evil imagination takes great delight in picturing two Players having found each other's Task Forces, launching simultaneous strikes, on the one hand to find only a dummy, and on the other, falling in contact at all because the range was too great. This is a game which will call for a lot of subtle calculation, but in the end it will be won by the Player who can take the best risk.

DESIGN CREDITS

Game Design: James F. Dunningan
Physical Systems and Graphs: Redmond A. Simonsen
Game Development: Frederick Georgian, Ira B. Hardy
Research: Jeff Gibbs, David C. Isby
Production: Larry Catalano, Manfred F. Milkahn, Linda Mosca, Kevin Zucker
### [14.0] Fast Carriers Tables

#### [14.1] Surface-To-Surface Probability Table

<table>
<thead>
<tr>
<th>Chance of Engagement When...</th>
<th>Daylight</th>
<th>Game-Turn:</th>
<th>Night</th>
<th>Game-Turn:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both Players wish to have combat...</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>One Player wishes to have combat...</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither Player wishes to have combat...</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**How to Use the Surface-To-Surface Engagement Probability Table**

If opposing Task Forces are found to be in the same Strategic Map hex during the Surface-To-Surface Combat Phase, the Player must secretly indicate their intention to engage or to avoid engagement. The Players then simultaneously reveal their intentions and either Player rolls the die and reads the table. If the die result is equal to, or less than the number shown on the appropriate position on the table, a surface engagement takes place.

#### [14.3] Strike Contact Probability Table

<table>
<thead>
<tr>
<th>Number of Waves in Strike</th>
<th>1 2 3 4 5 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance (in hexes) from Point-of-Origin to Enemy TF</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

**How to Use the Strike Contact Probability Table**

Cross index the number of waves in the strike with the number of hexes of distance from the point-of-origin of that strike and its target. Note that the number indicated on the table. Roll the die. If the number on the die is equal to, or less than the number found by cross-indexing, then the strike contacts the Enemy Task Force (see Wave Arrival). If the die number is greater, that strike misses the target completely.

**Note:** When the target is an airbase or an Enemy TF in a Coastal hex, there is no need to determine Strike Contact (or Wave Arrival) — the entire strike contacts the target automatically and arrives in the first Tactical Routine.

#### [14.4] Wave Arrival Table

<table>
<thead>
<tr>
<th>Number of Waves Remaining</th>
<th>1 2 3 4 5 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave that misses</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

**How to Use the Wave Arrival Table**

Assuming the strike has contacted the Enemy TF, it must be determined which of the waves in that strike arrive (enter play on the Tactical Display) for the First Tactical Routine. Roll the die and cross-index the die number with the number of waves in the strike. The result indicates which of the waves arrive. The column on the right indicates which waves totally miss the target (and are placed in the Holding Area of the Strike Display).

For those waves that are to appear in a given Tactical Routine, it must be determined where they will appear on the edge of the Tactical Display. Roll the die for each appearing wave. The die number indicates on which edge of the Display that wave will appear.

The waves remaining on the Strike Display should be moved to the right on the track to fill up any blank spots left by the waves now on the Tactical Display. At the end of the First Tactical Routine, execute the wave arrival procedure again (using the remaining total of waves) to see which are to arrive for the next Routine.

**Note:** Wave arrival procedure is not used when the target is an airbase or an Enemy TF in a Coastal hex. In such cases, all the waves arrive during the same Tactical Routine (the First) and may be deployed on the edge of the Tactical Display in any manner that the attacking Player desires.

#### [14.5] Anti-Air Combat Results Table

**Air-to-Air and Ship-to-Air**

<table>
<thead>
<tr>
<th>Air-to-Air Differential:</th>
<th>+1</th>
<th>+2</th>
<th>+3</th>
<th>+4</th>
<th>+5</th>
<th>+6</th>
<th>+7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship-to-Air (Total Flak)</td>
<td>1 to 10</td>
<td>11 to 20</td>
<td>21 to 30</td>
<td>31 to 40</td>
<td>41 to 50</td>
<td>51 to 60</td>
<td>61 or more</td>
</tr>
</tbody>
</table>

**Die Roll**

1 | 2 | 3 | 4 | 5 | 6 |

**Result Key:**

- **D-1** = Damage Point suffered by target. If aircraft is at full strength, flip counter over to reflect D-1 result; if unit is already flipped over, it is eliminated by a D-1.
- **D-2** = Aircraft unit is eliminated. Remove from play.
[14.6] ANTI-SHIP COMBAT RESULTS TABLE
(Ship-to-Ship and Air-to-Ship)

Ship-to-Ship
Air-to-Ship
Differential:

<table>
<thead>
<tr>
<th>Airbase</th>
<th>11</th>
<th>21</th>
<th>31</th>
<th>41</th>
<th>51</th>
<th>61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bombard</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>1</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>2</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>D-1</td>
</tr>
<tr>
<td>3</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>D-1</td>
<td>D-1</td>
</tr>
<tr>
<td>4</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>D-1</td>
<td>D-2</td>
<td>D-2</td>
</tr>
<tr>
<td>5</td>
<td>D-1</td>
<td>D-1</td>
<td>D-2</td>
<td>D-2</td>
<td>D-2</td>
<td>D-2</td>
</tr>
<tr>
<td>6</td>
<td>D-1</td>
<td>D-1</td>
<td>D-2</td>
<td>D-2</td>
<td>D-2</td>
<td>D-2</td>
</tr>
</tbody>
</table>

Die Roll

HOW TO USE THE ANTI-SHIP COMBAT RESULTS TABLE
When ships are attacking ships, total the Surface Attack Strength firing at a
given target and subtract the Defense Strength of the target to obtain the
Differential. Roll the die and cross-index the die number with the correct Differential
column and read the result. The same technique is used when air
units are attacking ships. When an airbase is being bombarded, total the
aircraft's Anti-Ship Combatt Strength (or the ship's Surface Attack Strength)
and read the result in the proper column. Attacks at Differentials lower than
those found on the table have no effect; attacks at higher Differentials than
those on the table are treated as the highest Differential shown.

[14.7] ANTI-SUBMARINE CONTACT TABLE
Number of "AS" Air Units in Search Pattern

<table>
<thead>
<tr>
<th>360° Circle:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>120° Fan:</td>
<td>*</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
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<td>4</td>
<td>5</td>
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<td>6</td>
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<tr>
<td></td>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
<td>6</td>
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<tr>
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<td>0</td>
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<td>0</td>
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<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
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<td>9</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>1</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

HOW TO USE THE ANTI-SUBMARINE CONTACT TABLE
Total the number of Anti-Submarine air units in the search pattern containing
the face-down Enemy submarine(s). Cross-index the total with the distance (in hexes) from
the point-of-origin to the hex containing the Enemy submarine(s). Note the number on the table indicated by this cross-indexing. Roll the die once
for each face-down Enemy submarine in the hex. If the die number is equal to,
or less than the number on the table, the submarine is contacted (turned face-up); if not, the submarine remains face-down.

Contacting Enemy Submarines with Friendly Naval Units:
total the number of Friendly naval units in the same hex as the face-down submarine(s). Roll the die once for each face-down submarine in the hex. If the die roll is equal to, or less than the number of Friendly naval units in the hex, then the submarine is contacted (turned face-up); if not, the submarine remains uncontacted (face-down).

Note that the procedure is the same if the submarine(s) is in a Coastal hex or an
all-sea hex.

[14.8] JET AGE STRIKE CONTACT
Number of Air Units in Strike

<table>
<thead>
<tr>
<th>Number of Air Units in Strike</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

Distance (in hexes) from Point-of-Origin to Enemy TF

HOW TO USE THE JET-AGE STRIKE CONTACT TABLE
Cross-index the number of aircraft units in the strike with the distance (in hexes) from the aircraft point-of-origin to the Enemy TF. Note the number on the table. Roll the die. If the die number is equal to, or less than the indicated number, then the strike contacts the Enemy TF; if the number is greater, the strike misses.

Note that when the target is an Enemy TF in a Coastal hex or an Enemy airbase, the strike contact procedure is not used; the strike automatically contacts the target.
SCHNELLE KARRIERE
Charles T. Walker

The new SPI game FAST CARRIERS is probably the last naval game for a long time. The game is an exhausting study in systems management. One does not fight a carrier battle, one manages it. But if the game is intended to study the management of systems, perhaps it can be used to show the management of a system that never was sent into action, the German Carrier Fleet. While we are at it, we can satisfy the curiosity of those who are always trying to put the Germans into everything that they didn't actually get into.

109 fighters, Ju 87 Stukas, and Arado torpedo planes. Experiments with these aircraft show them to be far too short ranged for carrier use, especially since the German commander would want to fight from as far away as possible for safety. Me110 fighters, also shown here as a Land based bomber, could have supplied the range, but were physically too large to fit the Zeppelin's elevator. Those reaching even a short distance could load a strike of 110 bombers on the deck, but you could never be able to lower them, launch other aircraft or land them after launching the strike. Sort of a Doolittle tactic.

The Germans had considered and conducted experiments with the FW190, which is shown here as a fighter, bomber, and torpedo plane. The airframe was found to be rather speedy for use as a torpedo plane. The He117 is armed with the Fritz X guided bomb, and is, simply put, a sudden death for any carrier caught in its sights. The Ju88 and He111 aircraft are long range land based bomber aircraft. The Condor is used against convoys that don't have air cover. The two jet aircraft are used for fanatics, and move 3 per turn on the strat map. German aircraft with 2 functions can change while on a base or on a carrier. Fighters carrying bombs may revert to fighters as can modern FB.

B-24's, DD's, Crvts and ASW trowlers have ASW.

The P51 fighter is used to cover the two long range Allied bombers (B24 and Lancaster). The other ships are used for Convoy and escorts. For game purposes other British ships can be represented by American ships.

SCENARIO 1: Action in the North Sea
(Use the North Sea map)

German forces: in 1312: Zeppelin, Immelman, Gneissnau, CA, 3 CL, DD. Zeppelin's Air group: 6 Me109, 6 Arado, 2 Stuka (Could be changed to 14 FW 190 with mixed uses). Immelman's Air group (2 Me109, 1 Arado).

In 1207: Goring, Richthofen, Tirpitz, CA, 4 DD. Goring's Air group: 3 Me109, 2 Ju87, 2 Arado. Richthofen's air group same as Immelman.

In 1304: Boeke, (same airgroup as Immelman), Scharnhorst, CL, 4 DD.

U-Boats as follows: 0705, 0707, 1003, 0403, 0309, 0810.

Ground based Air as follows:

1211: Six FW 109, Two He 177, six Ju 88, Five Flak.

1008: Six Me 110, Ftr, Six Me110 Bmr, 6 He111 (any), Six Flak.

1403: Five Me109, five He111, six Flak.

Allied: 0307: Wasp, 046, 048, 026, 027, 053-059.

0410: Two Victorious Class, 042, 060-069, 029-033.

(Allies may select air groups at will).

0405: six P51, six B24, 3 Flak.

0106: two B 24, 1 Flak.

0611: Four Lancaster, 5 Flak

0711: Six B24, six P51, 5 Flak.

0809: Two Lancaster, Two P51, 2 Flak.

Victory Conditions: British: Sink the Zeppelin and two other carriers, at least one Battleship and four other ships.

German: Sink two British Carriers and six other ships. If both sides achieve their victory conditions, the game is a draw. The game lasts three days and starts at dawn.

SCENARIO 2: The Convoy Battle
(Use the Central Pacific Map)

British: Enter Convoy on East edge any hex, use two dummy Task Forces. Convoy includes 30 Merchant ships, one Merchant Cruiser, one merchant AA ship, four Crvts, four ASW Trowlers, Four DD (054-057).

Germans: 12 U-Boats, deployed secretly in any hex. Six counters of Condor Bombers based in hex 1512 (presume this to be the French coast).

Victory: Germans must destroy 10 Merchant ships from the convoy before it exits the East edge North of row six. Game starts at dawn and lasts until convoy leaves the board.
FAST CARRIERS, by Jon Mischon, generally does a fine job of recreating the air-naval war in the Pacific. However, it does leave out (for space?) two important aspects of naval warfare of the period 1941 through 1945. These are coordinated air-torpedo attacks and submarines. Here are some workable addenda to incorporate these elements.

1. Hammer & Anvil air-torpedo attacks — Anytime more than two turns groups or attacking — six group attacks and AT THE SAME TIME another group attacks from any direction at least 120 degrees different, they may attempt to coordinate with a Hammer & Anvil attack. Hammer & Anvil attacks were simultaneous runs at both the side and end of the group which prevented the ship's captain from turning in any direction to "comb" (sail parallel to) the torpedo tracks.

Mechanics — Air groups trying to coordinate for a Hammer & Anvil attack move in two separate groups simultaneously. A die is rolled to determine if the coordination was successful. For the US player in '42 and '43, only a 1 yields successful coordination while in '44 and '45 a 1 or 2 would be successful. For the Japanese player in '42 and '43 a 1 or 2 indicates success while in '44 and '45 only a 1 equals successful coordination. This reflects the inadequacy of Japanese training programs and the Initial American inexperience and general deemphasis in torpedo attacks. If successful coordination is obtained then these separate air groups not only combine their anti-ship attack strength (supersedes 13.56) but also add +2 for each pair of 6-plane torpedo bomber groups (+1 for each 3-plane pair) that succeeds in flying a Hammer & Anvil attack. (Thus: one 6-plane and one 3-plane torpedo bomber group attack astern in one stack while three 6-plane torpedo bombers attack in one stack and successfully coordinate for a Hammer & Anvil attack. Therefore all five groups add their attack factors and add +3 for the pairing of 9 planes aft with 9 planes fore, leaving 9 planes unpaired.) Note that only two stacks may try to coordinate in any one combat phase and that only one die roll is made to attempt coordination regardless of the number of units in the stacks. Further, failure to coordinate commits you to attacking in that move, without the benefit of combined attack factors and subject to the ravages of Section 13.54. Section 13.54 does NOT apply to a successful Hammer & Anvil attack. (More than successful coordination die rolls please study carefully the difficulty of getting pilots to act in concert while flying at low level through a "forest" of shell splashes. The author believes that a one-third chance for well-trained and experienced pilots is, if anything, a little generous.

2. Submarines — Contrary to common notion, the US did occasionally, defensively deploy submarines in a surface battle area. Of course, the Japanese considered submarines as an offensive recon screen for their surface fleet. ConSubPac concentrated the US subs closely around Midway in late May '42 while Japanese I-Boats rendezomed the sas. The result, when the US boats outnumbered their IJN counterparts, was the coup-de-grace to Yorktown and Hammann while our "wolf-pack" managed to attack the enemy only once. The Nautilus scored a hit on a burning carrier but the torpedo did not detonate.

Elsewhere in the Pacific, Torpedo Junction bespokes the end of another battle carrier and major damage to the N. Carolina BUT ALSO it provided an additional influence on surface operations: "No more would task forces mill around 'Torpedo Junction'; henceforth ships entered the Coral Sea only with a destination to reach or a combat mission to perform." (Ref pp. 291 Morison). Use the following rules to include WW II subs in FAST CARRIERS.

A. Scale — Each SS unit will equal three submarines available at the battle area. No counter need be provided as movement will be recorded on a separate slip of paper.

B. Movement — SSs move one strategic hex every night turn.

C. Search — Any Strategic Search Phase a TF is in the same hex as a SS the SS may search any and all TFs in that hex. A 1 only and the SS contacts the TF. Multiple SS units in one hex each search and contact each TF separately. Follow full search procedure including drawing search effectiveness rolls to see if a TF is contacted. If you decide to attack then move to the SS and SS search sequence. If the SS decides not to attack the TF will not know if it ran afoul of an air search or an SS.

D. WW II SS Assault Sequence — occurs after Takeoff Phase and before Carrier Display Changes in the Operational Segment.

a. Getting past the screen — SS captain chooses ONE TF that he has contacted that turn and asks if the TF has any DDs and any CAP. (Obviously the TF now knows it has run into an SS). The TF commander must tell the truth. The SS captain rolls a die: A result of 1 equals discovered by CAP, if one or the other screening element is not there then that number, as well as 3 thru 6, means the SS slipped past the screen. If discovered go at once to the surface-sub attack procedure (c below). If undiscovered go to sub-surface attack procedure (b below).

b. Sub-surface attack — first the SS captain must choose, without seeing the convoy, to attack either class I (= capital ships) or class II (= auxiliaries). If class I is chosen then the TF captain takes all capital ships (CVs, CVLs, BBs and BCs) and without letting the SS know how many or what type are present the TF owner randomly picks ONE they die roll that the SS gets a shot at. The SS is told what type of ship the SS may hit and if damage was done but not the vessel's name or amount of damage. If class II is chosen then the TF owner must lay out all his oilers, transports, seaplane carriers, minelayers and sweepers so that the SS captain may examine and pick two to attack. If you choose a class which is not present in the list the SS may not attack and plays goes as ones to the Carrier Status Phase. Note that the TF now knows a SS is in the hex but can't attack it. All ships attacked by the SS are attacked on the +5 ship-to-ship table and Section 13.7 does apply.

c. Surface-sub attack — After the SS is discovered or attacks the TF is given +1 for each DD in its screen for one attack on the ship-to-ship table. (e.g. 44 for 4 DDs in screen). Add +1 if the SS was discovered prior to attacking. Results of 0-1 indicate subs are damaged and limp home without participating further in the battle, remove from play for one victory point. A 2-7 sinks the SS and they do the same to the enemy. (Those who wish to add aircraft to hunt SS should read the rules on anti-sub forces not generally available to CVs)

To add SSs to specific scenarios: 25.2 - IJN 2, USN 0, 25.3 - IJN 3, USN 4, 25.4 - IJN 4, USN 0, 25.5 - IJN 4, USN 0, 25.6 - IJN 2, USN 0. (Please note that this doesn't count by "KD line" that the IJN deployed too late at Midway. If you wish to add them give the IJN one more SS anywhere west of the hex column headed 1701). SSs may deploy anywhere at the start of the game except in the hexes directly adjacent to the starting location of enemy TFs. For those TFs with a seven hex area to deploy in this entails a twelve hex forbidden circle while those forces deployed ships mostly in a 15 hex area of movement. (Those who feel that these deployment restrictions eliminate the most obvious areas for effective SS screens may allow totally free SS placement if any SSs which start the game adjacent are required to either be due north or due south of its neighbor, thus forming scouting lines, or allow TFs to deploy freely into any hex northwest of it's starting hex for the IJN and southeast of it's starting hex for the USN. Naturally the TF may deploy in the hex it was slated to). Note that SSs may start in the starting hexes of enemy or friendly TFs as movement precedes search.

Further restrictions, such as limiting IJN SSs to attack Class I vessels, and requiring USN boats to deploy within 180 miles of a friendly naval base, may enhance realism even more. Players are advised that the IJN Player will be given a substantial edge in most games by including these rules BUT recall that in the early years of the war USN "victories" were, in many cases, exchanges of men and material for time.
FAST CARRIERS
Mini - Scenario

by "Professor" Clifford L. Sayre, Jr.

FAST CARRIERS is a recent SPI release providing an interesting and innovative game on WWII and contemporary aircraft and aircraft carrier operations. This Mini-Scenario is based on the OB given in the game for the Midway Scenario. The situation supposes (as the Japanese had planned) that no US forces would be available for the defense of the Island. The game can serve as an introduction to learning the rules. It is probably best as a Solitaire Scenario. The US Player does not have much to work with and it doesn't last very long, although he can win in the sense of satisfying the Victory Conditions.

US VICTORY CONDITIONS: Obtain a D1 result (Marginal) or a D2 result (substantial) against a Japanese carrier and cause the equivalent of at least ten D1 damage results against Japanese aircraft.

JAPANESE VICTORY CONDITIONS: Avoid the US VCs and eliminate all US aircraft except air search aircraft and have the Midway base in a D2 damage state at the end of two strategic turns.

SET UP: Japanese Player rolls a die. If even he can place his task force one or two hexes from Midway, if odd he can place his task force three or four hexes from Midway. A second die indicates direction from Midway. North is assumed to be "1" and the numbers revolve clockwise. The Japanese Player does not inform the US Player of the results of the die roll.

US Order of Battle

Midway: 2x10 Flak points, 3xF2A, 1xF4F, 2xSBU, 3oSBD, 1x B-26, 3xSB, 2xFBY.

JAPANESE Order of Battle

Akagi      503  3x Zeke, 4x Val, 4x Kate
Kaga       504  5x Zeke, 4x Val, 5x Kate
Hiryu      505  4x Zeke, 3x Val, 4x Kate
Soryu      506  4x Zeke, 4x Val, 2x Kate

Haruna 521, Kirishima 522, Tone 546, Chikuma 547, Nagara 559, 11 DD's (581-589, 591 and 592).

This OB reflects the availability of counters on the sheet and is only at deference with the rules in the case of the Soryu, where one Val replaces one Kate.

SPECIAL RULES

The game must conclude at the end of two strategic game turns. The US Player cannot obtain a technical Victory by placing search aircraft in a readiness state in the final stages of the game when the Japanese Player cannot retaliate. The US Player may transfer aircraft from search to an attack readiness state in accordance with the rules provided in the game, however this change in status must be accomplished sufficiently in advance of the end of the game that he can attack the Japanese task force.
FAST CARRIERS

In the Fast Carriers World War II Scenarios, it is impossible for dive or level bombers to attack BB's or BC's unless the vessels are already at D-2 status (from torpedo planes or surface combat). This forces the Player, as strike commander, to ignore undamaged capital ships unless he has several torpedo planes per target available. This is certainly unrealistic, as dive bombers did attack undamaged BB's during attacks on carrier forces (Kirishima at Midway, South Dakota at Santa Cruz, etc.). In game terms, it is impossible for 18 dive bombers to attack a BB. In real life, damage to these units was, at best, minor (South Dakota took a bomb right on Number 2 turret, which many of the turret crew were unaware of). But bombers had the potential to wreak steering positions, destroy AA guns and crews, and so forth.

To allow this, reduce the Defense Strength of BB's and BC's to allow the bombers a chance to inflict damage. I suggest an anti-bomber DS of "6" for the Japanese BC's, and DS's of 7 or 8 for U.S. battleships and the Japanese ships Mutsu, Nagato and Yamato. These Strengths allow attacks and damage appropriately because of the more accurate nature of dive bombing attacks (as opposed to torpedo attacks) plus the nature of the armament carried by dive bombers in 1942-43: 1000 (U.S.) and 550 (Japanese) lb. bombs fused for use against carrier decks.

These bombs would hardly penetrate the heavy deck armor of capital ships, but could do damage akin to a D-1 result. These Strengths could also apply against the less-accurate level bombing attacks, as accuracy has already been built into the air unit's Anti-Surface Combat Strengths.

The ship's printed DS would simply apply against surface or torpedo attack and any modifications would be calculated from this (i.e., the Nagato at D-2 would still defend against bombers at an adjusted Defense Strength of 5, not 3).

Since a ship at D-3 status is dead in the water and must be towed, it is illogical for the rules to permit a carrier at D-3 to change facing. This change deprives a defender of an easy way to defeat a torpedo attack by presenting the ship's stern to the attacker. This places a dead-in-the-water ship where it should be—at the attacker's mercy save for any CAP or Flak.

Speaking of towing, CA units should be allowed to tow CV's. There is precedent: Northampton towed Hornet at Santa Cruz until subsequent attacks forced her to part the line. The ships maintained a speed of 3-4 knots until that time.

To give B-17's more punch when attacking airfields, triple their Attack Strength to 6, instead of doubling it to 4. This enables a stack of three units to make attacks of +12 and +6. This dabbling is not unreasonable, since the game allows torpedo planes like the TBF or Kate to attack at +3, and the B-17 was specifically designed as a high-level bomber, unlike torpedo planes.

Delete Case 11.2 and allow a defender to set up his CAP in any way he wants—he may place all his units with torpedo planes coming in, or low with bombers attacking. Let him help sink himself. If a Player has only four CAP units, why should he be forced to deploy two at low altitude—even if it is not a bad idea and is really in his best interest?

Allow ships to transfer between two TF's in the same hex at any time, as long as no dummies are thus created (save this until Night as per the rules). At Santa Cruz, CLAA Juneau accidentally left crippled Hornet to join the Enterprise over the horizon—before the attack, which caused Hornet's eventual abandonment. This change also allows the Player another chance to out-smart himself, one of the intriguing aspects of the game. Players can agree to reasonable transfer limits or none at all, since the strategic hex is ninety miles wide, and TF's may not be all that near to each other, even if they are in the same hex.

U.S. carriers should be allowed to try to remove the first D-1 result, if that is the full extent of damage following the last Tactical Stage before a new Strategic Turn. Yorktown at Midway, Enterprise at Eastern Solomons and Santa Cruz, and Hornet were able to repair much of the damage done to them by the Japanese attacks. This is accounted by the superior U.S. damage control (reflected in the DS's of the ships), plus the nature of Japanese hits—bombs were fused to penetrate deep before exploding. A die roll of "1-3" could be allowed to remove a D-1 at the start of a new Strategic Turn. Or, the D-1 result would remain (for accumulation purposes), but normal air operations could be allowed to resume after an intervening Strat-Turn. Japanese ships should not be given this advantage, because most U.S. bombs would detonate just under the flight deck, blasting huge holes and starting fires which the crews were hard-pressed to control, much less repair. The Players can try variations of this.

A quick note on the Midway Scenario: Add one (TBF) to Midway at the start of the game. This is a detached portion of the Hornet's famous Torpedo 8, and, historically it attacked Nagumo along with the Army B-26's early on 4 June. And, speaking of B-26's, in this Scenario they should be torpedo planes, not high-level bombers. Make-shift attachments for two torpedoes were rigged on them (much to the surprise of their crews), as they were on some PBY's (which attacked Kondo's transports and actually hit a tanker). Two B-26's and an Avenger returned.

Dave Newman
FAST CARRIERS:
The Japanese attempt to avenge Midway
Sept. '42. (Hypothetical)

U.S. Order of Battle: In 1 or 2 task forces; hex 1411.
Enterprise (004) 5xF4F, 5xB25D
Saratoga (006) 4xF4F, 5xB25D
N. Carolina (011)
Indiana (014)
Washington (013)
Salt Lake City (034)
San Francisco (033)
New Orleans (022)
Atlanta (045)
7DD (077-079) (081-084)
4DD (066-069)

Japanese Order of Battle: In 1 or 2 task forces; hex 0203.
Zuikaku (501) 4xV5, 6xZeke, 4xKate
Shokaku (502) 4xV5, 5xZeke, 5xKate
Zuho (512) 1xV5, 2xZeke, 2xKate
Yamato (537)
Muter (525)
Nagato (526)
Atago (533)
Chokai (534)
Kusiano (536)
Tone (546)
Chikuma (547)
Sendai (564)
9DD (591-599)
2DD (521-522)
3DD (638-639, 641)

Map The map of the central Pacific is used.
Airbases Midway Island (U.S.) 2x10 flak points:
1xPBY, 5xSRD, 2xF2A, 3xF4F.
Special Rules 1. The game lasts for a maximum of
3 days (18 game turns). Note: No oilers are
therefore required.
2. Midway Island is deemed to have been
under siege and therefore can only repair one
damage point at the end of every three game
turns as stated in the rules.
Victory Conditions Victory points are awarded for
damaging or sinking ships and for destroying
aircraft as in the rules. In addition the Japanese
player receives 10 victory points at the end of
each game turn in which Midway airbase is in
a D4 damage state — the player
with the greater total of victory points is the
winner.

Mike Cawthra

FAST CARRIERS ERRATA
[25.11] (CHANGE) In order for the Japanese
Player to win, all eight of the US Battleships
must be in a D2, D3 or D4 state at the end of
the Tactical Routine.

[25.33] (CHANGE)
Midway: 2 SBD (instead of three)

[25.43] (CHANGE)
Saratoga (006) 6x(F4F), 5x(SBD), 3x(TBF)
Enterprise (004) 5x(F4F), 6x(SBD), 3x(TBF)
Wasp (008) 6x(F4F), 5x(SBD), 3x(TBF)

[25.63] (CHANGE)
Saratoga (007) 5x(F4F), 6x(SBD), 3x(TBF)

[14.5] (CHANGE)
Line 6, Column +3: the correct result is D2
(not D1).

WEAPON SYSTEM/
GAME SYSTEM

This selection of short articles is intended to,
over the next months and years, provide gamers with the
necessary information to keep their modern era games
current. The problem with doing a modern game seems to be
that the governments of the world have a singular lack of
regard for our keeping up with them.

NEW SOVIET CARRIER

Information now indicates that the Soviets have laid
the keel for a new Carrier. This would probably be in
the 40,000 ton range and carry about sixty aircraft. This
represents a significant development in Soviet naval
thinking. The new Carrier, in the SPI game FAST CARRIERS
would have no surface attack factor, a defense factor of
4, and carry 4 MiG-23A, 4 MiG-23B, 1 Su-19, and 1 Horn.
The Air Defense system is unknown, but a factor of 10 is
recommended.

NEW AIRCRAFT

The Soviets have a new long range fighter plane, the
MiG-23, which is produced in two versions. The "A" version
would appear in FAST CARRIERS as a 17-10-4-J. The
"B" version would appear in the same game as 15-12-4-J.
Both are FB8, and the reduced counter is half in all re-
spects, keeping the fractions on Air-to-Air strength.
The Americans have plans to quickly get the F-15 Air
Superiority fighter in operation. While not a carrier-
based aircraft, it would be, in terms of FAST CARRIERS,
identical with the F-14 except that both should have a
range allowance of 4. The planes are far from identical,
but the differences tend to compensate. The more expen-
sive and technical F-14 is also a bit smaller and can be
stowed on a Carrier. The new F-16 aircraft would be, in
terms of the same game, a FB-18-12-4-J. Some versions of
this Aircraft are Carrier borne.
The “fast” in Fast Carriers is not to be taken as a literal description of its intricate routine of play. Undaunted by its complexities, Mr. Perleberg presents us with a critical overview, some historical translations, and some interesting revisions to make that routine a little more complex. Just to swap things up a bit, you see. —RAS

Fast Carriers presents nine scenarios, from Pearl Harbor (a solitaire slaughter) to a hypothetical carrier action in the North Sea. But the real “heart” of the game is the group of scenarios dealing with the four “classic” actions of World War Two: Coral Sea, Midway, Eastern Solomons and Santa Cruz. It is in these four scenarios that the tactical map is used; only here does all that strategic maneuvering end with the actual attacks by the dive and torpedo bombers, and the defensive efforts of the CAP and AA fire. In the modern scenarios, the tactical sequence is nicely abstracted; the different weapons systems involved necessitate it. This abstract process, however, can’t match the satisfaction of diving your very own Dauntless, with your sights on Akagi. This article will examine these four scenarios, offering first a brief description of the game, and then discussing some ways in which the rules can be changed to add to it.

The game operates on three levels: strategic, operational and tactical. The strategic phase, played on one of several strategic maps on the game sheet, involves the movement of task forces, their efforts to search out the enemy, and the resolution of surface combat. This surface combat is slightly abstracted and occurs mostly in—you guessed it—the Guadalcanal hex. Braver souls may try to integrate CA into the game, but it probably isn’t worth it; it would take too much from the later carrier actions. The search procedure is especially well handled; each Player must allocate so many of his aircraft to the different search patterns to try to spot the Enemy task forces. This procedure is simple enough, but the complications arise through the use of dummies and “search effectiveness” chits. Every time his task forces are spotted by the Enemy Player, the Owning Player picks one of these chits for each task force spotted. The chits include results from “Report True” to “Report False” (everybody’s favorite), and include various levels of approximation. The Owning Player then tells the other Player, within the guidelines of the chit draw, what has been spotted. Because the draw may allow him to lie about or exaggerate the composition of the spotted force, neither Player can ever be completely sure about which force contains which ships until an attack is committed; it is not unusual to launch a full strike against an Enemy carrier force, only to find a dummy task force, or a mere CVL.

The operational level is played on separate cards, one card for each task force. It is here that each Player allocates his aircraft assets to the missions of strike, search or combat air patrol (CAP). The individual carriers portray three status levels for their aircraft: their planes may be in dead storage in the hangar, being armed and fueled, or on the flight deck, awaiting take-off. Where these aircraft are at any given time is important; being caught with aircraft on the flight deck or in arm and fuel lowers the Defense Strength of the carrier and makes it easier to sink, so each Player must constantly attempt to anticipate the other’s actions—although the radar rules make this task far easier for the U.S. Player.

The operational display also involves the creation of strikes. Each strike is formed into waves; the more waves in a strike, the more chance there is of making contact with the target, but then there is also more chance or your attack force arriving piecemeal and being drowned in detail. In addition, there are range limitations to be considered. The F4F Wildcat, for instance, can only stay aloft for three operational turns (3 hours of real time) and can only hit targets two hexes away and return safely. If still in the air when its time runs out, it “splashes” and is lost. The range limitations are handled simply, and provide yet another consideration each Player must weigh.

The World War Two scenarios include a tactical sequence on the mapsheet’s tactical display [one hex = 1000 yards; one Tac-Turn = 40 seconds], where the actual forces, represented by counters for each individual ship and each group of six planes, maneuver for position and attack. Each type of weapon must be used characteristically; torpedo bombers must come in low, in a straight line at least three hexes in length, and attack “unw” style from the front. Dive bombers must enter the target hex from the stern and dive from high altitudes with their weapon. Level bombers, like the B-17, must move six hexes in a straight line at high altitude to attack (it’s pretty worthless, though, for they never seem to hit anything). Damage is taken in the familiar D1-D4 sequence, with D3 representing dead-in-water and D4, sunk. Aircraft counters are double-sided, and aircraft require only a D2 for destruction, taking a D1 result by flipping over to half-strength.

Appropriately, there is an incredible amount of luck in this sequence. Waves may arrive one at a time or not at all. The attackers may enter the map from the wrong direction and have to fly through heavy doses of CAP and AA defenses to attack. Because of the search-effectiveness system, they may not even find anything to attack! Best of all, the CRX is set so that a roll of “1” at the highest possible odds results in a “no effect.” This can be, to say the least, quite a break for the defender and a disaster for the attacker; it can be hard enough to launch one such attack per sequence. But that’s the nature of carrier warfare!

There are other elements to Fast Carriers, of course, but those are the basics: search, commit and attack. The game also includes land airbases, shore bombardment, weather, night turns, and coast-watchers. In the modern scenarios, there are submarines and long range interceptions.

One can really learn a lot from the game, if one is willing to take the time. Fast Carriers is a long game; some scenarios have taken five to six hours to play. The game can be “long hours of boredom followed by a few minutes of sheer terror,” to paraphrase a contemporary fighter pilot, if a Player doesn’t pay strict attention to the game and lets things happen by chance. The game also requires a lot of space; each Player can have up to eight task forces, and each TF requires its own operational card. My advice is to pick a space where you can carry on unseen by your opponent and where you can lock out the cat: mine once took to batting Zui-kaku about the room, something that never happened at the Coral Sea. It helps the game some if you make two copies of the strategic map involved, so that each Player can plan his moves in advance without giving his intentions away through fingerprints on the mapsheet. It is possible to Xerox sections, and then each Player can draw and make notes right on the copy, away from his opponent and in front of his operational cards. [It’s also possible to cut up the Strategic Maps using a straightedge andrazor. This alleviates the space problem. —RAS.] There are, however, some flaws in the game at each level. In the following sections I’d like to consider what they are and offer simple ways to correct them, and by doing so improve the game.

Let us first consider the famous dive bombing attack at Midway in game terms. The three Japanese carriers, Akagi, Kaga and Soryu are caught Game-Turn Three, Day Two, with aircraft in both Arm & Fuel and Flight Deck Boxes, due to Nagumo’s indecision over which target to strike. In
game terms, their Defense Strengths are reduced to zero. The first wave of the U.S. attack, 6 TBD units, has made its run and has been slaughtered, obtaining no hits. One TBD unit escapes. All the Japanese CAP has been pulled down to low altitude, and so is unready for the next two waves of dive bombers, which arrive simultaneously. Three SBD units, Leslie's from Yoktontown, attack Soryu, making (in game terms) two optimum attacks of +6 and +4. The probability of results is as follows: No effect - 11%; D1 - 41%; D3 - 13%; and D4 - 18%. Historically, the Soryu takes three hits and sinks on Game-Turn Five of the same day.

The Kaga and Akagi are attacked at the same time; McClusky's 6 SBD units breaking up into two roughly equal groups to make their attacks. Japanese AA fire is incredibly light, and the CAP is still straining for altitude. Both carriers are attacked at the same odds as Soryu, Kaga taking four hits and sinking on Game-Turn Four, and Akagi, attacked by slightly fewer aircraft, takes three hits and is abandoned by Nagumo at the end of Game-Turn Three and sinks on Game-Turn One, Day Three.

The point is that, historically, all three carriers sank, an event that has about a 95% chance of happening in the game. I mentioned earlier that Fast Carriers requires a lot of good luck to win, but in reading accounts of the battle, one sees that the sinkings were not all that lucky; the real luck came in the lack of fighter cover and AA defenses, and in the way in which the carriers were caught with all that ordnance on the deck, factors that were already present in our recreation. Yet it is next to impossible to recreate this epic attack in the game. Something is clearly wrong.

What's missing here is a rule regarding fire. All three ships burned furiously after the bombings. Kaga and Akagi probably received D3 results from the attacks, and the Soryu probably suffered a D2. But the fires that were ignited finished them off, as happened to the Lexington at Coral Sea. True, there is an attempt made to reflect this factor; this is why Defense Strength is affected by aircraft units in Arm & Fuel and Flight Deck Boxes. But while these rules may account for the greater initial damage, they do not provide for the lingering danger of fire that claimed so many carriers.

I propose the following changes in the game rules to account for this effect:

**[13.71 & 13.72]** (Change) This reduction takes place only when attacked by dive bombers.

**[13.74]** (Addition) After all attacks have been made for that Operational Game-Turn, a die is rolled to determine the appearance and effects of fire. [See Fire Appearance Table]. The die is rolled once for each carrier that has suffered any kind of damage in that Tactical Sequence. One is subtracted from the die roll if the carrier has at least one unit in the Arm & Fuel Box; one is subtracted if there is at least one unit in the Flight Deck Box. If the result is a "no effect," there is no fire and no further die rolling. If the result is "Fire," make a note of the unit. At the beginning of every Operational Game-Turn, the die must be rolled for each unit on fire. Subtract one if the current damage level is D2; subtract two if the current damage level is D3. If the result is "Controlled," the fire is considered out, and no further die rolls are necessary. If the result is "No effect," the die must be rolled on the next Turn. If the result is "D1," the damage level of the carrier goes up one level, and the die must be rolled again on the next Turn.

This rule will allow for the lingering effects of fire, and will make the dive bomber a more lethal weapon against carriers. After Coral Sea, the U.S. should not subtract from the die roll when using the Fire Appearance Table; this will simulate the improved fire control systems on U.S. carriers, where CO2 was flushed through fuel lines when an attack was picked up on radar.

**[13.74]** FIRE APPEARANCE TABLE

<table>
<thead>
<tr>
<th>Die Roll</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>Fire</td>
</tr>
<tr>
<td>0</td>
<td>Fire</td>
</tr>
<tr>
<td>1</td>
<td>Fire</td>
</tr>
<tr>
<td>2</td>
<td>Fire</td>
</tr>
<tr>
<td>3</td>
<td>No Effect</td>
</tr>
<tr>
<td>4</td>
<td>No Effect</td>
</tr>
<tr>
<td>5</td>
<td>No Effect</td>
</tr>
<tr>
<td>6</td>
<td>No Effect</td>
</tr>
</tbody>
</table>

Subtract 1 if air units in Arm & Fuel; subtract 1 if air units in Flight Deck. See text for explanation of results.

**[13.74]** FIRE RESULTS TABLE

<table>
<thead>
<tr>
<th>Die Roll</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>D1</td>
</tr>
<tr>
<td>0</td>
<td>D1</td>
</tr>
<tr>
<td>1</td>
<td>D1</td>
</tr>
<tr>
<td>2</td>
<td>No Effect</td>
</tr>
<tr>
<td>3</td>
<td>No Effect</td>
</tr>
<tr>
<td>4</td>
<td>Controlled</td>
</tr>
<tr>
<td>5</td>
<td>Controlled</td>
</tr>
<tr>
<td>6</td>
<td>Controlled</td>
</tr>
</tbody>
</table>

Subtract 1 if current damage is D2; subtract 2 if current damage is D3. See text for explanation of results.

As can be seen, the U.S. Player, with his higher complement of dive bombers and improved fire control, benefits most from these changes. The U.S. Player should be thrown a corresponding handicap to even things out.

As the game stands, it's hard to understand why there aren't more TBD's or TBF's aboard each U.S. carrier; unit for unit they are twice as lethal as SBD's or SBU's. Historically, this was just not the case. The American torpedo, with its magnetic pistol, was notoriously unreliable, and had a habit of running too low or exploding before hitting the target. After the battle of Santa Cruz, the Americans couldn't even scuttle the stationary Hornet with torpedoes; the Japanese had to do the job later with two of theirs. This situation wasn't taken care of until early 1944, when the magnetic pistol was removed. The following rules portray this effect:

**[13.57]** Whenever U.S. torpedo planes attack, a die must be rolled to determine their effective Attack Strength. The die is rolled for each unit for that attack. If the unit is a TBD, subtract one from the die roll. If the unit is half-strength, a roll of 1 or 2 gives an effective Strength of 1, etc. A half-strength TBD subtracts two from its die roll. Note that the effective Attack Strength of the TBD can drop to zero.

This rule effectively recreates the unreliability of American torpedoes, and the ineffectiveness of the TBD (as if a Defense Strength of "2" isn't enough). The U.S. Player can still use the torpedo bombers, but he can't count on them, and the dive bomber will become his main weapon. It's too bad he can't use his TBD's for recon work.

As mentioned earlier, the U.S. Player benefits from radar in the later scenarios. The effects of radar are simple, essentially allowing the U.S. Player an Operational Turn's advance warning of an impending strike, allowing him to "clear the decks" for action. While it is the case that, as the rules mention, long range interception had not yet been perfected, using radar, the U.S. could make contacts at least 35 miles out, as they did at Eastern Solomons. I suggest a minor change in the radar rules that would affect the Tactical Stage and that would more closely simulate the use of radar and CAP:

**[19.11]** (Addition) The Japanese Player must also state the altitude status of his units.

**[19.14]** (Addition) In the Tactical game set-up, the U.S. Player deploys any units on CAP after the Japanese wave's arrival and placement procedure. Each subsequent Japanese wave arrives if any occurs on the Fifth Tactical Turn during the Attacker Air Movement Phase, although the Japanese units so placed may not move until the First Tactical Turn of the next Sequence. Note that this gives the U.S. Player two Air Movement Phases to prepare to intercept. If all the Japanese units in a wave are destroyed before Turn Five, the intervening Tactical Turns still take place, and the next wave is still placed on Turn Five during the Attacker Air Movement Phase. (Note: This procedure changes that of Cases 11.2 and 11.3.)

These rules add to the U.S. radar advantage by giving him the entry location of the Japanese Player. Play is affected slightly, with the net result being that the Japanese must work harder to attack. One might experiment with rules allowing torpedo bombers to "slip in low," or allow a kind of "long range intercept" rule, where U.S. CAP may enter the entry/exit hexes and intercept according to a die roll, and if no interception is made, requiring another die roll to re-enter...
the map, but this is probably complicating things too much. The rules presented seem to be more historically accurate.

As far as AA fire for both sides is concerned, I add two hexes in range when the target is at high altitude. This appears to accentuate the different hazards to dive and torpedo bombers, and allows the dive bombers a fighting chance to attack. Remember, they have to stick around through a Flak Attack Phase before attacking.

The damage key on the last page seems to contradict the text of the rules. Case 9.48, for example, implies that air units may land on a carrier with a D2 damage result, but the last page says no. I say air units land (only) on a D2 carrier, but each unit is “attacked” at +2 odds on the Anti-Air CRT. For airbases, units which land on a D3 airbase are “attacked” at +2, and units landing on a D4 airbase, at +3. (This changes rule 15.71.) This would simulate the hazards of landing on a landing strip of white sand. If fire rules are used, air units are prohibited from landing on a burning carrier. Another change in the damage results that seems appropriate would be to declare “sunk” destroyers and CL’s with D2 results. Destroyers especially were usually unarmored, as were oilers, etc. and their predominant defense, speed, is already represented by their Defense Strength.

The final problem in the Tactical Phase involves the air bombardment of airbases. As it stands now, it is next to impossible to damage an airbase through bombing; the power just isn’t there. An attempt is made to give B-17’s more anti-base strength, but the net result is that every aircraft unit is just about the same for bombardment purposes: three TB-7’s affect an airbase exactly the same as 15 B-17’s. The B-17 can be 16% better in the unlikely event one manages to maneuver three, intact units over the airbase simultaneously, which seldom happens. The best solution seems to be to proceed with the tactical routine, but total all the bombardment points attacking each hex, and then conflecting three attacks on each hex as one does with shore bombardment. This will allow air units to have some effect on airbases without changing the game too much.

Most of the above rules changes affect the third, Tactical Routine in the four major scenarios. The Operational Phases are fine, although in reading accounts of the battles, one finds a difference between the accounts and the flight deck capacity given for the carriers in the game. This is probably a minor point and not worth changing; anyway I have this thing against changing counter values. It would, however, prove useful to require air units to be armed with a specific kind of ordnance: anti-base or anti-ship. This would be noted at the appropriate Carrier Status Display Phase, and would account for the Japanese actions at Midway. Torpedo planes armed with torpedoes may not attack land airbases, and dive bombers attacking ships with anti-base weapons get no attack benefit for air units in the Arm &

Fuel Boxes of carriers attacked (the bombs explode on impact and don’t penetrate the Flight Deck). Such a rule can be added with little increase in complexity.

The big omission in the operational scenarios seems to be the inability of air units to fly air cover missions, or, as they are called in Solomon’s Campaign, another SPI game, area CAP missions. Land-based aircraft can fly CAP only for the task force that includes their carrier. This reduces airbases, land bases especially, to a much more unimportant role. In a game of air/naval action, there should be some way of using fighters for a covering force:

[9.52] (Change) Fighters, only, may fly CAP for task forces or bases other than their own. Air units from a carrier may fly CAP for any TF in the same or adjacent hexes. Air units from land airbases may fly CAP to the limit of their strike range (Endurance-1). During the Take-off Segment of any daylight Operational Game-Turn, air units may take off from their base and be placed in the CAP Box of the appropriate task force or base. (Alternatively, for land-based aircraft flying CAP at long range, the air units could be placed in the Strike Box, and Endurance Tracks set, so that the units must “fly” to their station. This adds complications.) The air units then function as normal CAP units, subject to range attenuation. If the base from which these units originate is attacked, these units are unavailable. Land-based units, only, may switch stations between task forces in the same hex at any time; however, they may only engage in the active defense of one task force or base. They are, in effect, flying area CAP as in Solomon’s Campaign. All other CAP rules apply.

[9.53] (Addition) Air Cover CAP suffers attenuation to reflect the shuffling of the air units involved. (See Table.) Simple: take the number of units involved, cross-reference with the range involved, and arrive at the effective strength of the CAP for this target. For example, 10 Zeke’s from Rabaul (hex 0602) are flying Air Cover CAP for a task force in hex 0605, three hexes away. If attacked, five air units would be present for defense. The other five units may not be used for any other purposes. Note that U.S. units at a range of two, and Japanese Zeke’s at a range of three or four, subtract one from printed Attack Strength.

These rules will mostly aid the Japanese, as in most scenarios Rabaul is the only major airbase. Still, these rules will make the area surrounding a land airbase or carrier safer for friendly units, and present more realistic possibilities for each Player.

On the Strategic Level, in three of the scenarios there arises the problem of the inability of the Japanese to make “slot runs.” They can try, of course, but they wind up being attacked at least four times, or until the U.S. Player runs out of aircraft at Henderson. The research on this point is puzzling; everybody agrees that the Japanese would start high speed runs before dark from just within range of the SBD’s from Henderson. Everybody agrees that the range was about 200 miles. But everybody also agrees that the SBD had an operational range of 1000 miles, as reflected by the Endurance Level in the game. Where are the missing 600 miles? Even if the 1000 mile figure represents unloaded range, something is still amiss. I have to assume that problems like fuel shortages are operating here, but no source I found deals with this problem directly. The only solution I can come up with, for those who desire to make “slot runs,” is to limit the endurance of all aircraft from Henderson to 2 (in the Eastern Solomons and Santa Cruz scenarios only), and allow Japanese DD, CA, CL and BC units to make a two hex move from either hex 1004 or 0905 on Turn Six, and another two hex move to either of those two hexes on Turn One. This is admittedly an abstraction, but I’m trying to keep all that fast, but simple. Solomon’s Campaign, a special rule seems to be the only way to deal with “slot runs.” One could perhaps justify it by noting that night falls about 1830 around the equator in August, and Turn Five should

<table>
<thead>
<tr>
<th>[9.54] AIR COVER ATTENUATION TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distance in hexes</strong></td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>US JA</td>
</tr>
<tr>
<td>0.1 0.1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

Cross-reference range in hexes for the appropriate nationality with the number of air units involved. The number given is the actual number of units that would be placed on the Tactical Display in the event of an attack. Note that Japanese units at a range of 3 or 4, or U.S. units at a range of 2 subtract one from their Anti-Air Strength. The British Seafire units in Case 25.6 may fly Air Cover CAP in the same hex only.
It's not complicating things too much to add wind into the game. Wind direction is determined by the roll of the die at the beginning of the Plot Phase on Game-Turn One, and applies throughout the Campaign Day. The scatter pattern in Case 20.2 is used to determine direction. Wind has two effects: it "regularizes" storm movement, and puts a restriction on taking off and landing aircraft.

[20.2] (Change) Storms move in the general direction of the wind. A roll of one or two and the storm moves one hex to the left of the wind direction; a roll of three or four and the storm moves one hex in the direction of the wind; a roll of five or six and the storm moves one hex to the right of the wind direction. Roll the die for each storm.

[20.5] (Addition) Aircraft carriers which either launched or landed aircraft in the preceding Operational Turn may not move away from the wind during that Strategic Naval Movement Phase. They may stay in position or move into the wind. Away from the wind is defined as the direction opposite the wind direction, and the two directions adjacent to that direction. Landing aircraft refer to strike aircraft.

These rules account for the fact that carriers must sail into the wind to launch or retrieve aircraft, a factor which will present more reasons for maneuvering in the game. The rules also make it possible for a Player to try to follow a storm if he wishes, to stay concealed. Regardless of popular belief, the weather is not all that random.

The biggest problem with the strategic game is not the fault of the game itself, but one of the "frog of war." The search effectiveness procedure goes a long way toward encompassing this factor, but it cannot solve the larger problem: each Player knows what he is searching for. At Midway, Nagumo figured the U.S. had, at most, two carriers. They had three. At Coral Sea, Takagi though he had run into one American carrier, the Saratoga. Instead, he ran into the Yorktown and the Lexington. In Fast Carriers, each Player spends time searching, but he knows what he is searching for, it is only a question of where.

Offered—below, for each of the four major scenarios, is a means to vary the forces involved. Each Player rolls the die secretly before play starts, and chooses the appropriate force level. This selection is kept secret from the other Player. (Note: The superior American intelligence sets-up the situation of each scenario; the U.S. Player still does not get to know the exact composition of the opposing force.) In some cases, the Player must tell the opposing Player something, but it will be noted that this does still not give away the exact composition. Some of the scenario variants may be unbalanced, but I have tried not to cripple either side too much.

Play begins with each Player entering the map on Turn One. In the Midway scenario, the U.S. Player enters on the east edge, and the Japanese Player on the west edge. In the scenarios using the South Pacific map, the U.S. starts from the south edge, and the Japanese Player from the north edge or from Rabaul (hex 0600). The task forces may be allocated in any way desired (exception: see Case 25.36). In scenarios which have a definite time limit, add one day to the total time of play to allow for the extra maneuvering.

These variants will allow for that vital uncertainty that characterized the four carrier battles of World War Two. These rules, as with the others presented above, are intended to be simple additions, adding realism at little cost in complexity. Players may decide which rules they want to use, and which they want to ignore, at no cost to the over-all feel of the game. This article, of course, does not discuss the tactics involved in play: each Player must learn the value of the first strike, successive strikes, strategic maneuvering, etc., for himself. Or he can study accounts of the actual battles; what worked there will work in Fast Carriers, if one is lucky. For, when one gets right down to it, the winner in Fast Carriers is the one who knows his die and plays the "percentages," a Player can plan and plan and have his strikes miss, or find dummies or fail to inflict damage. So it's not to say that the game is all luck. Fast Carriers can teach a lot about carrier warfare in World War Two if one takes the time to learn and play it well. If one uses the rules above, a little "spice" can be added to the game by adding more considerations for each Player. The four "classic" scenarios in Fast Carriers make the game a good simulation of history.

[25.27] Coral Sea Variants: Japanese Player

Die Roll  Force Additions and Subtractions
1  Add Hiryu(S05), 4(Zeke), 3(Val), 4(Kate); Tone(S46), Mogami(S37), 3 DD's(S87-S89), from start.
2  Add Junyo(S15), 3(Zeke), 3(Val), 3(Kate); 4 DD's(S87-S89), from start.
3  Add Junyo, as above; subtract Zuikaku (S01), add 10(Betty) to Rabaul, from start.
4  Standard O.B.
5  Standard O.B.
6  Standard O.B.

(1) represents an increased Japanese effort. (2) represents an increased effort in the South Pacific, with a decrease in the later Allied Campaign. (3) represents a decreased naval effort, but an increased land-based support force. (4), (5) and (6) are the historical levels. (Note: Add one complete Campaign Day to Japanese objectives, see 25.21).
Standard O.B.
Standard O.B.

(1) postulates earlier arrival of repaired Saratoga. Historically, she arrived on the scene about June 8. (2) postulates loss of Yorktown at Coral Sea, and quicker repair of torpedoed Saratoga. (3) represents loss of Yorktown at Coral Sea, with Saratoga unavailable. (4), (5) and (6) represent historical situation. (Note: Saratoga’s air complement in (1) represents primarily the counter mix; although the TBF was available. The U.S. Player must tell the Japanese Player if Yorktown is not used.)


Die Roll  Force Additions and Subtractions
1 Add Hiryu(505), 5((Zeke), 5(Val), 3(Kate); Mogami(537), Mikuma(538), 4 DD’s (621-624), from start.
2 Add Junyo(515), 4(Zeke), 2(Kate), 3(Val); from start. Add 6(Betty) to Rabaul.
3 Subtract Ryujo(514), 4 DD’s(607-609, 611). Add 6(Betty) to Rabaul.
4 Standard O.B.
5 Standard O.B.
6 Standard O.B.

(1) postulates an early Japanese withdrawal at Midway, with no second day’s attacks. (2) simulates an increased Japanese effort. (3) simulates a decreased naval effort, but more land-based support. (4), (5) and (6) are the historical situations. (Note: Add one Campaign Day - 6 Game-Turns - to Japanese objectives, in 25.42.)


Die Roll  Force Additions and Subtractions
1 Subtract Wasp(008) and total task force designated to start in hex 1409 in 25.43. Add 6(P-39) to Henderson. May not go to High Altitude.
2 Standard O.B.
3 Standard O.B.
4 Add 6(P-39) to Henderson. May not use High Altitude.
5 Add Yorktown, 6(F4F), 3(TBF), 6(SBD); San Diego(047), Vincennes(028), 3 DD’s (055-057), from start.
6 Standard O.B. Yorktown not sunk.

(1) actually is the historical situation, as Wasp as refueling during the battle. (2) and (3) represent the carriers available at the date of the battle, (4) represents an increased fighter commitment to Henderson. The P-39 here, as in (1), are P-400, an American-made P-39, which was shipped to the British. All these aircraft are equipped with British, hence unusable, oxygen equipment. (5) simulates Yorktown not having been sunk at Midway. Note that the U.S. Player must use 6(P-39), 6(B-17) and 3(TBD) in this variant, due to the counter mix. It is strongly recommended that these “ersatz” counters be used in “non-visible roles,” like search and CAP to avoid giving the variant away. (6) represents the Yorktown not sunk, but unavailable. (Note: The U.S. Player must tell the Japanese Player if the Yorktown was not sunk).

[25.56] Santa Cruz Variant: Japanese Player

Die Roll  Force Additions and Subtractions
1 Add Hiryu(505), 3(Zeke), 4(Val), 3(Kate); subtract these aircraft from those stationed at Rabaul. Hiryu has a flight deck capacity of 5 for this variant only. Force available at start.
2 Add Hoshio(513). 1(Zeke), 1(Kate), at start.
3 Standard O.B. Hiryu not sunk at Midway.
4 Standard O.B.
5 Standard O.B.
6 Add Hiryu(505), 4(Zeke), 4(Val), 4(Kate); subtract these aircraft from Rabaul, when appropriate. Subtract Zuho(512). From start.

(1) postulates that Hiyo, sister ship to Junyo, had not suffered a mechanical failure which required it to be withdrawn, and its aircraft sent to Rabaul. (2) represents a (slight) increase in the Japanese effort. Hoshio probably to be used as a decoy carrier, a favorite Japanese tactic. (3) is the historical force, but the Hiryu was not sunk at Midway. (4) and (5) are the historical situations. (6) allows for the Hiryu to make an appearance. (Note: The Japanese Player must tell the U.S. Player if the Hiryu is not sunk.)

[25.56] Santa Cruz Variants: U.S. Player

Die Roll  Force Additions and Subtractions
1 Standard O.B. Wasp not sunk.
2 Standard O.B.
3 Standard O.B.
4 Add 3(SBD), 3(P-39) to Henderson.
5 Add Wasp(008), 4(F4F), 5(SBD), 2(TBF), at start.
6 Add 4(F4F), 5(SBD), 3(P-39) to Henderson.

(1) represents historical scenario, with Wasp not torpedoed 15/9/42, but unavailable. (2) and (3) are the historical situations. (4) and (6) represent increased air commitment to Henderson Field. (5) simulates Wasp not sunk and available at the battle. (Note: U.S. Player must tell the Japanese Player if the Wasp is not considered sunk.)
Navel wargames seem to run a close second to ancient wargames at the bottom of the popularity stakes. If anything is ever going to change this sad fact, then FAST CARRIERS is it. With the recent Midway movie still doing the rounds and two new books about the real thing on sale, let's take a closer look at this game.

The first question to answer is "Why would I want to play Fast Carriers?" Well, why do you play any wargame? It's probably down to the fact that men have been settling intractable differences of opinion by violence since the year dot, and from Thermopylæ to Stalingrad battles have been fought and won which decided issues and changed the course of history. Wargames are drawn by the fascination of conflict and intrigued by the chance to command forces themselves, to see how they rate compared to Alexander, Napoleon, Guderian, and to experience from the safe proxy of tabletop simulation, the various difficulties and ordeals faced by men and machines at war. And because of the "playability" of the games themselves. We'll be looking at the playability of Fast Carriers a bit later, via a recent game. Right now consider the historical angle.

In December 1941 Britain, France and Holland had empires in the East. By May 1942 they didn't; Japan did. Everyone knows the story of the Japanese advance, that they conquered the biggest empire in the shortest time in military history. Their soldiers were hard and ruthlessly devoted to victory; as followers of Bushido they could be little else. But this spectacular conquest was made possible by one unit; the Nagumo fast carrier force and its six first-line carriers: Kaga, Soryu, Hiryu, Zuikaku, Shokaku, and of course Nagumo's flagship the mighty Akagi.

It was they who smashed the American fleet in the coup of Pearl Harbour, they who doomed Singapore when they sank the battleships Prince of Wales and Repulse. At the Coral Sea they sent the American carrier Lexington to the bottom and left the carrier Yorktown for dead. (A tragic mistake on their part for which they paid the full price at Midway). And when they dispatched the heavy cruisers Dorset and Cornwall along with the carrier Hermes, they sealed the eventual fate of the British Empire in the East.

Until World War 2 the Royal Navy remained the largest and most prestigious marine force in the world. The peoples of the Pacific and Indian Oceans under British dominion were kept in awe of what on paper was the unassailable power of Britain's ships. There could be no thought of rebellion against such strength. But in six months the Japanese forces cruelly humbled the British soldier on land, while more importantly, at sea, the Royal Navy in the East was crushed alone and entirely by the iron fist of the Nagumo carrier group. The myth of Western superiority was exploded and Admiral Somerville's fleet beat a disorderly retreat to the safer shores of East Africa, and did not recover the will or the resources to face the Imperial Japanese Navy again until 1945 when the war was almost over.

Even then the loss of face and arms had been too damaging for Britain to regain her former power and the Empire was as good as gone. It was the same for the French, although they fought on stubbornly until 1954 before acknowledging the inevitable as the Dutch and British had done. In addition the more subtle domination of the Americans was set back years and their long term Eastern policy so disrupted that Korea and the debacle of Vietnam were inevitable. Before being destroyed in her turn, Japan destroyed the realities and plans of four Western Empires in the East, and came closer than she could have guessed to creating the "Asian Co-Prosperity Sphere". And she did it in six months; inheriting a huge empire for the loss of the second-line carrier Shoho, six destroyers, a minelayer and a seaplane tender; against Allied losses of the first-line carriers Lexington and Hermes, nine battleships, four heavy cruisers, three light cruisers, seventeen destroyers and a seaplane tender — an entire peacetime fleet!

Such were the stakes played for in the Pacific War and its decisive battles. Had the Japanese tide not been quelled at Midway; had the Battle of the Atlantic not been decided by the aircraft of the carrier USN's mythical Ark Royal disabling Bismarck; had their airstrike against the Italian fleet at Taranto and the Tirpitz at Kafzang gone awry; the war would unquestionably have been lost. The Japanese and Americans would sit in uneasy peace on either side of the Japanese lake that had been the Pacific; Britain would brood alone and hungry across the channel at a Europe in Nazi chains. Perhaps only Russia could have kept going by herself. Such were the consequences hinging on the success or failure of carrier actions in World War 2.

No other group of ships have ever held the balance of power so completely, no other single military of naval unit has ever altered that fact; and it requires imagination, ingenuity or directly; not the 8th Army, 633 Squadron, Panzerguppe Guderian, the 10th Legion or any other corps d'elite in the annals of warfare.

The game illustrations on the bridge of Akagi, Akagi! Faster and smaller than the massive and better-armed Kaga, larger and better-armed than the swift sisters Soryu and Hiryu, Flagship of the force that dominated two oceans. On her bridge the vital decisions that won and finally lost the great battles were made. She could never be lived in Peter C. Smith's evocative words: "For six months... the arbiter of the fate of nations"...

And for the Allies, what of the Yorktown; left, lies in gutted ruins at the Coral Sea, who returned from her watery grave to break the back of the Nagumo group, only to succumb to the last defiant assault of that ruined power and finally sink with her victims in the deep waters around Midway?

There are epic tales woven around these huge ships and sombre grandeur is imparted by the feel of FAST CARRIERS.

It has pace; “long hours of boredom followed by a few minutes of sheer terror” as one put it; and it requires imagination, ingenuity, and luck to use the advantages of mobility and surprise which this game so uniquely offers. I recently witnessed the closing scenario of the massive battle in which resembled two snakes slowly contorting themselves across a map of Eastern Europe. You need a change from landlocked crawls and deadlocks, Fast Carriers give you a chance to free the ocean in which to plan and pull off magnificent coups and leave your opponent on the canvas not knowing where to strike back when he gets up. All ready you can strike in meticulous detail and arrive over your target to find it was a “dummy”; there were never any ships there at all! Carrier warfare is above all confusing, but it is a game where initiative and fresh thinking can be given free rein without running loose from or being bogged down by the demands of realistic limitation.

It comprises nine scenarios including actions in Korea, Vietnam and an American-Soviet clash of tomorrow in the Danish Straits. But for people as me as I, the achievement of Fast Carriers lies in its recreation of the carrier conflicts of World War 2 I've just mentioned: Coral Sea, Midway, Eastern Solomons and Santa Cruz, with the hypothetical Northern Solomons and solitary Pearl Harbour thrown in for good measure. With the amendments and additions postulated by Christoph Perleberg in Moves 26 and the essential errors in Moves 24 you have the scope to fire out the whole campaign as you think best.

Each strategic turn in the game represents four hours and can cover operational turns of one hour each. These are when you launch and retrieve aircraft, put together strikes and so on. Six op-turns would be enough to see my Kales and Zekes ditching in the sea, so I was glad when they located their new carriers after
Four hours flying; the "endurance" markers of the Zekes had been down to one more hour. This realistic rule puts a curb on the kind of dazzling air complements reorganizations one often sees in AF stories! But not if it was done and Shoho could boast four Zeke units, equivalent 24 aircraft, for CAP over the Tulagi transports.

The American had sent his bombers to Port Moresby to provide more effective search in the seas West of New Guinea, into which the invasion forces must almost inevitably come. The hope was that they would wither them whilst his carriers chased the Tulagi group. Only one Zeke unit is normally stationed at Lae. He was tracking for him. It was a question of whether risks from airbase flak are too great without such action being rewarded by special victory points.

Thus his bombers went out on search whilst mine left Lae to hit his base. With three Betty and Four Val bombers to hit the runways and five Zeke to strafe grounded aircraft or combat CAP, I was reasonably confident of a good strike. There were no special victory points in it for me either, but it’s a good idea to render Port Moresby and its aircraft useless if you can, to prevent heroic defences late in the game.

A second wave hit a day later to destroy F9F units on the ground, the bombers failed to hit target and the flak got a clean sweep. In four minutes it may have hit the entire air complement of my land bases and given my opponent the chance of continuous and unrebutted strikes at my transports. I had gained my opponent 20 points for this.

The next searches had me locating both American TFs. He confessed to having two carriers and other ships in one, and having no ships in the other. He found my carrier group, the only one so far in search range and I told him two carriers and other ships. Neither of us knew the score for sure, but the odds are against there being a second TF. I had some hope there aren’t, so I prepared an immediate strike on what transpired to be his true task force. His planes were still out of range so he put up seven F4F units on CAP and I also modified my CAP from Shoho over the Tulagi group.

Strike A took off: four Valts, eight Kates and five supporting Zeke in three waves. The more waves you divide a strike into, the better your chance of finding the target. The rub is that you have an increased chance of arriving piece-meal and being hit by CoE dogfight flak. However, I had a range advantage and wanted the first strike, and three waves made sure we’d get there. At this point, Strike Contact, the American had his fighters on watch for that TF and places them on the Tactical map. Now I see for the first time the proof of the pudding, not the turkeys supported by eight heavy cruisers, twelve destroyers and two oilers; a very tough nut! So begin those “few minutes of sheer terror” as you pilot your half-squadrons across the map into the CAP and flak, moves accounting for forty seconds of real time each. The first wave missed the target, the second lost a Zeke and a Kate coming away at half strength. But they sank the Yorktown with her six SBD dive-bomber and two TBD torpedo bomber units on board. The minor third wave wasn’t strong enough to hit the target, it claimed 36, sank the director in the over screen and sank it, losing the Zeke fighter cover in doing so. Score: Japan 30 points, America 6 points!

Strike B had been launched on the next take-off phase and now arrived over the target before the American could do anything bar land those CAP units involved in the Japanese attack. Three waves again, this time the third missed. Wave one was big; three Zeke covering two Val and Four Kate; representing a flight of 36 bombers. With the evaporation of Zeke, Val and Kate and the other Val took a D1, but we D3’d the Victorious leaving her dead in the water, and D1’d an oiler as well as shooting three F4F out of the CAP. Wave two sank the crippled carrier for the loss of one Val, the other escaping at half strength. Japan 38 points, America 8 points!

In our next encounter, does the Lexington, left, and thinking of the rest of the campaign, my opponent could do nothing other than concede the game. It was all over by mid-afternoon on the screen. We lost 72 points from sinking two carriers and a destroyer and eliminating the equivalent of 120 aircraft for the loss of 42 points covering 42 aircraft left. The second day, F4F losses were lost in landbased battles (against American losses there of 241).

Although no masterpiece, this game does illustrate that Fast Carriers, more than most, can be won and lost in a few minutes, and it also brings up some of the general strategic and tactical problems my players will encounter. I won’t talk of my own plan. It worked which is the main thing. But in general, certainly in the first two scenarios, the Japanese player must be bold and decisive in committing his carriers. The American on the other hand, faces falling between the stools of over-aggression and over-caution. My opponent’s plan, despite the crash at Pearl Harbor, relies on the sheer weight of numbers and composition of the force. These spots range from telling the absolute truth through varying levels of approximation to telling outright fibs. Although my searches are indicative of whether truth or lies have been told, he does know the exact number of ships his opponent opponent has. His ability to fake out the Japanese base strategic map positions can make a fair guess at the truth or otherwise of a search. But under Mr. Perleberg’s amendments you have usually four alternative O.B.’s for each side and this means you never know exactly what you’re up against.

We intended playing the whole campaign and so dispensed with the die roll for selecting our starting situation. We knew the scores in, agreeing that ships which had received any damage would be unavailable at the next scenario.

The object of the Coral Sea is for the Japanese to land troops to Tulagi in the Solomons and capture the American base of Port Moresby in the New Guinea coastal area. My objective is to stop them. I immediately cancelled the Akektan campaign at Midway, freeing the second-line carrier Ryujo for Midway and allowing me to bring her sister Hayato and four destroyers into the Coral Sea. I created five taskforces. The invasion transports for Port Moresby cannot reach it until the fourth day of the battle. But the battle on Tulagi against the American group, will sail along the coast of New Britain and West coast of New Guinea under the protection of aircraft from the Japanese base strategic map. The Tulagi transports who were due to beach on the second day were more likely to see action first (or Sea Action first!) sailed with the second-line carrier Shoho in their escort.

The seaplane tender Kamikawa Maru was to make straight for Woodlark in the Solomons Sea and had reached her in fact when she received the only Japanese force sending out search planes. The main fast carrier force comprised the first-liners Zuiun and Shokaku, and with June Gunn all sound, But on the second day the latter was hit and hit hard in the captured game; it’s too big an advantage to lose.

The superiority of Zeke over F4F doesn’t mean it can’t be beat. A F4F can be quickly across the target map (one hex per turn) and can hit hard. One Zeke can attack an F4F at a differential of +1, needing a six to score a hit (flak strength), a hit on a hit. On the other hand, only one F4F can’t attack a Zeke at all! Even Two of the hapless F9Fs can’t do it! The American also suffers badly in fighter support and carrier comparison. His SED’s are reliable but slower than the Japanese Vals. With the Perleberg amendments his TBD’s can prove completely useless. This means the American must hide his time and aim to get the big strike. He must close the gap and hope for the counterattack to catch the Japs refueling. This will almost never happen to the Americans who receive radar notice of pending enemy strikes and who is not subject to Perlberg’s accurate, cruel and innovatory Fire Hazard table; but the Japanese player is open to being caught like this.

So the American knows he is likely to be hit first, but he knows too that long-range strikes will be too expensive and the other TF’s in search; which follows that it would be folly to divide his numerically inferior fleet to pursue different targets. At the Coral Sea, for instance, any attempt to land troops-white destroyers, CAP aircraft and fast strike forces will be subject to landbased bombing from Raubal or Lai in addition to flak over the TF itself and of course, the attentions of the sentinel fast carrier group. And against all this his own destroyers and Cruiser screen will be halved into two groups as will his CAP and his own strike capability.

We finally played the Coral Sea with an old and respected opponent. I was the Japanese as I prefer, and we played using Mr. Perleberg’s suggestions. The most important of these alters the historical idea of battle and takes it in order to recreate the “Fog of War”. When you search a Task Force on the strategic map in Fast Carriers your opponent draws a chit and, guided by it, forms the composition of the force. These spots range from the absolute truth through varying levels of approximation to telling outright fibs. Although my searches are indicative of whether truth or lies have been told, he does know the exact number of ships his opponent opponent has. His ability to fake out the Japanese base strategic map positions can make a fair guess at the truth or otherwise of a search. But under Mr. Perleberg’s amendments you have usually four alternative O.B.’s for each side and this means you never know exactly what you’re up against.

We intended playing the whole campaign and so dispensed with the die roll for selecting our starting situation. We knew the scores in, agreeing that ships which had received any damage would be unavailable at the next scenario.
My first action was to attempt the transfer of two Kates from Sodo to Shoksv to Junyo in return for two Zeké units, thereby bolstering the defensive of the Tulagi group and the offensive capacity of the fast carriers. In Avalon H-1, 2 to 3 with the 2nd and 9th and it's just order it and do it. In Fast Carriers you have to go through the Strike Contact procedure to locate any enemy or friendly TF that is not your original target; ships that were missed and stayed in the air searching for their new homes.

Meanwhile I was flying long-range Betty bombers from Rabaul to Lao to put together a strike against Port Moresby and my opponent was simultaneously flying four P39s, four B17s and a B26 in there from Cooptown to beef it up! Everyone's guns.

By grouping together his entire force he creates a formidable AA power and has the surface strength to win combat with the Jap carrier group if need be. He has also gathered all his inferior planes in order to launch large strikes at his targets as they appear. At Coral Sea he has time to do this, stalking the Tulagi group first before it heads off to locate the Port Moresby force he'll probably have been landbased bombing along the whole of its route. Where my opponent was by flying too fast. The Perleberg Amendments add an extra day to each scenario and have the Japanese starting on the Northern edge of the board rather than inland. This gives the Japanese carrier group a whole day in which to find, engage and destroy the enemy before the first transports come into range. By steamlining down the middle he can also head off any attempt at the Port Moresby force as well. The American must be more cautious, slow up under a huge CAP cover and wait for the transports.

My opponent put up seven units on CAP, keeping back five to support a strike. It wasn't enough. Each wave I sent lost two of those. Zeké gunship was and the Zeké units took against F4F's are going to do more harm than they get in the hands of an experienced player. Even so, strength in numbers and huge CAP is still the best means of survival and chance of ultimate victory of the American player.

Fast Carrier fanatics will know that I've been elucidating what has come to be known as the "Fonda Postulate". This can be reduced to its purest and usual maxim: "We can't trade them carrier for carrier...". This is good advice for the American players to follow in its campaign involving all the scenarios where ships sunk in one Stay sunk in the rest. He can't launch strikes at a fully-prepared enemy, can't waste planes to day after day in air-to-air scrappers (as the Americans were at Coral Sea and Midway) then you'll best be the American player.

To speak briefly of tactics on the tactical map, again utilising the same game. My opponent was trying out massive concentrations of flak on single enemy air units. We say, nine ships combining their flag to roll the die on the maximum flak column. A roll of 2 or 3 gives a D1; a 4, 5, or 6 eliminates the target. But if you lose a single unit, you lose modernity and the advantage of the newfangled metal decks. It is reported that last in the war she once sailed on battle into battle whilst the Kamikaze so droved by the American carriers bounced harmlessly off her decks! Yet her air complement reveals how the British completely misunderstood and underrated the capabilities of the new F4F units and two each of Allbatross and Swordfish. Our navy could not grasp that carriers should not be restricted to a supporting role for surface ships. More than this, they turned the tables in the battle to sink the Bismarck. That clash of obolete Leviathan cost the lives of thousands as the Hood was smashed and sunk, the Prince of Wales badly damaged and the King George VI was shot up as well. Yet the two carriers present, Victorious and Ark Royal, could have launched co-ordinated and repeated attacks (had they been properly equipped) and settled the issue with hardly any loss of (Allied) life!

In the same way the American carrier force after the sinking of the Yorktown. This involved the tactical map; the upshot of it all was to turn to a strike on the enemy, as I rolled the die on the fire appearance table; but I was lucky. This time! There is nothing like the scorcher to impress upon you the importance of not losing carriers. The Yorktown going down with her full complement could set you back 54 points, and you can only pull that back by hitting a enemy carrier the same way whilst you're operating a two-carrier force, your ability to DO IT has just been halved!

By this means Fast Carriers brings home the catastrophic effect of a sinking carrier earlier than in the Pacific conflict. (I never want to play the Midway scenario and cop the historical result; I don't want a few of Four carriers and about 160 points) More often than not, the loss of a single carrier is enough to destroy your ability and more importantly your will to fight back. We can be very cautious, probing for the right time to strike. In our Coral Sea we both played brashly and boldly, and of course the fleet with the lowest reach won. That's all there was to it, but there's more to FAST CARRIERS than that.

Maybe its greatest achievement is in the tactical phase. There's a tendency for armchair generals to follow the leadable role of their real-life counterparts and regard counters on a map as being expendable, part of the flak and play of their strategies.

When you are flying your groups of six planes over a huge enemy fleet, dogged and outnumbered by CAP fighters your own escort can't hold off; blasted by increasingly heavy flak as you draw closer; watching your carefully projected combined attacks being ruined by loss of numbers; cursing as carriers manoeuvre and prevent their steers to your lumbering torpedoes that you're too late by the time you bring in more flak and fighters to get the right bead once again; you don't see them as expendable and score the minutes of sheer terror as a board game can get.

The swordfish off the carrier Victorious have an endurance of six. They have a defensive strength of one against the Zeké's attack strength of seven. They pack an anti-ship punch of six; the biggest of the allied shipborne planes, and one of them can D2 a Jap carrier or sink a destructor. This leaves your own movement allowance of only two hexes against six for the Zeké and they are the slowest aircraft on the board. If their targets are close to the centre of the tactical map they must end up not two or three but Six CAP phases. Six flak attacks before pushing their strike home. They must survive the same to escape again. The dive-bombers and fighters will have been and gone by turn six of their twelve-turn run; from then on the Swordfish are on their own. Their torpedo has not sufficient survivability of their American counterparts so they remain their slowest, strongest weapon. But their attack is almost certainly suicidal. They cannot hope to succeed.

These features, printed on a counter on a board, are derived from the actual combat potential of the real aircraft of World War 2. Real men fought the battles. Don't forget that when you play FAST CARRIERS.
# FAST CARRIERS TASK FORCE OPERATIONS DISPLAY

## Carrier (Base) Status Display

<table>
<thead>
<tr>
<th>Carrier Capacity Marker</th>
<th>Carrier Capacity Marker</th>
<th>Carrier Capacity Marker</th>
<th>Carrier Capacity Marker</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANGAR</td>
<td>HANGAR</td>
<td>HANGAR</td>
<td>HANGAR</td>
</tr>
<tr>
<td>ARM &amp; FUEL</td>
<td>ARM &amp; FUEL</td>
<td>ARM &amp; FUEL</td>
<td>ARM &amp; FUEL</td>
</tr>
<tr>
<td>FLIGHT DECK</td>
<td>FLIGHT DECK</td>
<td>FLIGHT DECK</td>
<td>FLIGHT DECK</td>
</tr>
</tbody>
</table>

## Search Display

- Fan "A" (FABZ)
- Wedge "6" (FAZ) and Wedge "1" (ABZ)
- Wedge "E" (EFZ) and Wedge "3" (BCZ)
- Fan "D" (CDEZ)
- Wedge "4" (DEZ) and Wedge "3" (CDZ)
- Wedge "8" (CEZ) and Wedge "1" (BCZ)

## Strike Display Nr. 1

<table>
<thead>
<tr>
<th>WAVE 6</th>
<th>WAVE 5</th>
<th>WAVE 4</th>
<th>WAVE 3</th>
<th>WAVE 2</th>
<th>WAVE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRIKE ENDURANCE</td>
<td>F</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>T</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
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</tbody>
</table>

## Strike Display Nr. 2

<table>
<thead>
<tr>
<th>WAVE 6</th>
<th>WAVE 5</th>
<th>WAVE 4</th>
<th>WAVE 3</th>
<th>WAVE 2</th>
<th>WAVE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRIKE ENDURANCE</td>
<td>F</td>
<td>9</td>
<td>8</td>
<td>7</td>
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<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
</tbody>
</table>
FAST CARRIERS
SEARCH PATTERN
TEMPLATE

USING THE
SEARCH TEMPLATE
The center hex (Z) on the template corresponds to the position of the TF or airbase from which the searching planes originate. The code letters in the hexes are used to describe the boundaries of the area being searched on the Strategic Map. For example, aircraft in Search Pattern "Wedge I" are searching all the hexes on and within the triangle described by the dotted lines connecting hexes A, B and Z.

[14.2] STRATEGIC AIR SEARCH TABLE

<table>
<thead>
<tr>
<th>Search Pattern</th>
<th>Number of Air Units in Search Pattern</th>
</tr>
</thead>
<tbody>
<tr>
<td>360° Circle</td>
<td>1 2 3 4 5 6 9 12 18</td>
</tr>
<tr>
<td>120° Fan</td>
<td>⋆ ⋆ 1 ⋆ ⋆ 2 3 4 6</td>
</tr>
<tr>
<td>60° Wedge</td>
<td>⋆ ⋆ ⋆ ⋆ ⋆ ⋆ 1 ⋆ 2 3</td>
</tr>
<tr>
<td>Distance (in hexes) from Allocating Point of Origin to Enemy TF in Pattern</td>
<td></td>
</tr>
<tr>
<td>0-1</td>
<td>3 4 5 5 6 6 6 6 6</td>
</tr>
<tr>
<td>2</td>
<td>1 2 3 4 5 6 6 6 6</td>
</tr>
<tr>
<td>3</td>
<td>0 1 2 2 3 4 5 6</td>
</tr>
<tr>
<td>4</td>
<td>0 0 0 1 1 2 4 5</td>
</tr>
<tr>
<td>5</td>
<td>0 0 0 0 0 0 1 2 3 4</td>
</tr>
</tbody>
</table>

HOW TO USE THE AIR SEARCH TABLE
Total the number of air units in a given search pattern which are operating from the same point-of-origin (i.e., the same TF or airbase). For each Enemy TF in that pattern, calculate the range (in hexes) from the point-of-origin to that Enemy TF. Cross-reference the range with the number of air units in the pattern and roll the die. If the die number is equal to or lower than the number indicated on the table, the Enemy TF is found and the Enemy Player must draw a Search Effectiveness chart and give a report on that TF. This procedure is followed for each Enemy TF in the search pattern of a group of air units. For example: Four air units are searching in a Fan pattern in which there are two Enemy TF's; one at a range of three hexes and the other at a range of five hexes. The searching Player rolls the die for the nearest TF and obtains a "4" (finding the TF) and rolls again for the farther TF and obtains a "6" (thereby not finding that TF).