

*I've always considered "CA" to be a game deserving of a good home—and have been a little peeved over the indifferent ratings it's received. Game folk have said: it lacks "salt." Herewith, Wiegiers and Bieksza shake the shaker.*

## SCENARIOS AND VARIANTS

# REFITTING "CA" Modifications for an Old Favorite

by Karl Wiegiers and David Bieksza

During breaks in the action at the local Conflict Simulation Society, a pair of veteran wargamers will sometimes play "CA," a one-on-one war duel. They require neither map nor counters—just a die. Whoever first rolls three "ones" sinks the enemy.

This anecdote points out two of the most striking characteristics of "CA." First, to naval historians the game's compromises with historical accuracy mean most of the scenarios are inevitably decided by rather mechanical die-rolling. But second, to gamers this veteran title still retains a considerable measure of appeal. Specifically "CA" was, and remains, an exciting and fast-moving simulation of modern naval combat.

With the resurgence in popularity of naval games, and with the appearance of such highly advanced tactical simulations as *Dreadnought* and *Fast Carriers*, we believe the time has come to offer a series of variations to "CA" to rescue it from its dusty place on the back shelf. We have developed several new rules and scenarios which we believe add considerable depth and moderate complexity to this highly playable game. Our intention is three-fold: to place more emphasis upon the importance of tactical maneuver (or more simply "seamanship"), thereby improving the historical accuracy; to incorporate some of the recent advances in the "state of the art" of wargame design, thus taking advantage of the increased sophistication of the average wargamer; and to retain the game's playability while enhancing its interest and enjoyability.

The modifications we outline below reflect a compromise, as always, between strict historical accuracy and ease of play. In keeping with the intention of the original designers, we tended toward the latter in play-testing the various rules. Thus, we were forced to reject some intriguing rules which, in our opinion, stifled the rapid pace of the game or dras-

tically upset the play-balance. At the end of the article we will comment more fully on these rules. In addition, we have incorporated some earlier ideas into our rules. We urge interested readers to consult three excellent articles by Steven List, Jerrold Thomas, and William C. Harting in MOVES #11.

### [8.0] Combat Results Table

The anecdote that opened this article serves to illustrate a valid criticism of "CA," too great a reliance on luck when ships of equal strength engage each other. The source of this shortcoming rests largely in the Combat Results Table. It's hard to score a hit, but when you do you put the target in a world of hurt. Historical rationalizations notwithstanding, we feel that more than three hits should be necessary to sink a ship, so proportionately less damage should be caused by each hit. Also, at least a small probability should exist for sinking a ship in a single overwhelming attack. Similarly, odds worse than 1-1 should not be entirely ineffective, for small guns were quite capable of inflicting extensive superstructure and armament damage even against capital ships. Accordingly, we offer a new Combat Results Table for determining hits and damage.

### [8.1] EXPLANATION OF COMBAT RESULTS TABLE

In conjunction with the new CRT, we propose that each ship now has the capacity to absorb up to *three* Power and *three* Weapon hits. One P hit reduces a ship's maximum speed to "4," two P hits reduce the maximum speed to "2," and after three P hits the ship is dead in the water. Similarly, each W hit reduces both gunnery and torpedo strengths by one-third (fractions are rounded to the nearest integer). Three W hits render a ship completely without offensive capability. P hits or W hits in excess of three are ignored.

### [8.2] SINKING A SHIP

Now that we've fine-tuned the progressive effects of punishment, we reset the amount of damage a ship can absorb and remain afloat. *Five* hits of any kind will sink a ship. An important point is that when hits are ignored because three of that type have already been accumulated, they do not contribute to sinking. For example, a ship whose current damage status is two W hits receives a "PW2" combat result via gunnery. The target is *not* sunk—the P hit reduces its top speed to "4" and one W hit reduces its firepower to zero, but the second W hit is ignored. Another P hit is necessary to sink the ship. Had the "PW2" results been achieved via *torpedoes*, however, the target would have been sunk with three P and two W hits, since torpedoes cause only P damage.

### [8.3] RECORDING DAMAGE STATUS

Keeping track of each ship's accumulated damage is easily accomplished using SPI's Simultaneous Movement Plotting pad. These forms are also useful for recording torpedo expenditures, reloads, etc. This method takes advantage of the fact that most wargamers have stacks of pads left over from recent SPI land tactical games. Even better, this method avoids the awkwardness of stacking damage markers on ship and speed/facing counters. Simply record the ship designation in the left-hand column under "unit." Columns 1-3 are reserved for P hits, 4-6 for W hits, and 7-12 for torpedo bookkeeping as required. Check the appropriate boxes as hits accumulate, and torpedoes are fired and reloaded. Marking down the reduced firepower of a ship in columns 4-6 also speeds play.

### [7.0] GUNNERY COMBAT

As pointed out by Steven List in MOVES #11, the present "CA" rules do not yield any tactical advantage for skillful maneuver of

COMBAT RESULTS TABLE													
(Torpedo or Gunnery Strength vs Defense Strength) Odds													
Die Roll	1-2	1-1	2-1	3-1	4-1	5-1	6-1	7-1	8-1	9-1	10-1	Die Roll	
1	W	P	P	P	PW	PW	PW	P2W	PW2	P2W2	Sunk	1	
2	•	W	W	W	P	PW	PW	PW	PW	P2W	PW2	P2W2	2
3	•	•	P	P	W	P	PW	PW	PW	P2W	PW2	3	
4	•	•	•	W	P	W	P	PW	PW	PW	P2W	4	
5	•	•	•	•	W	P	W	P	PW	PW	PW	5	
6	•	•	•	•	•	W	P	W	P	PW	PW	6	
7	•	•	•	•	•	•	W	P	W	P	PW	7	
8	•	•	•	•	•	•	•	W	P	W	P	8	

one's ships. Were it not for torpedo attacks, and to a lesser extent special scenario victory conditions, the opposing forces might just as well steam within range, drop anchor, and blaze away. One way to remedy this obvious oversimplification is to make a ship's gunnery strength dependent upon its facing, as indicated in the following rule change.

#### [7.15] Effect of Facing on Gunnery Fire

A ship's net gunnery strength is halved (retaining fractions) when its Line of Fire passes through its adjacent bow or stern hex. The Line of Fire is determined just as in land tactical games, from the center of the firing unit's hex to the center of the target unit's hex. This penalty does not apply when the Line of Fire coincides with the hexside of the bow or stern hex, i.e., 30° to either side of the ship's keel.

The advantage of being broadside to the target is now apparent. The classic maneuver of "Crossing the T" can thus be an important aspect of "CA" tactics. For the sake of simplicity, ships dead in the water are immune to this rule.

#### [7.31] Splitting Gunnery Fire

Also from List, CA's, BC's and BB's should be permitted to split their fire, applying half of their net gunnery strengths (retaining fractions) to each of two targets. A tricky situation arises when the facing and split-fire rules are combined. The gunnery strengths printed on the counters seem to reflect the hitting power of the main turrets only. The broadside rule, then, simply reflects the inability of the aft turrets to engage targets lying off the bow, and vice versa. The split-fire rule allows the fore and aft turrets to fire independently. Therefore, splitting of fire cannot be applied to two targets when both Lines of Fire pass through the same bow or stern hex.

Similarly, suppose a ship attacks two targets; the Line of Fire to one passes through the bow hex, but the other Line of Fire does not. The net gunnery strength of the ship is *not* quartered—halved for splitting fire and halved again for facing. Because the forward turrets can be brought to bear on the target off the bow and the aft turrets on the other target, the net gunnery strength is only *halved* and applied to both targets.

#### [7.32] Combined Gunnery Fire

The following rule indicates how to handle combined gunnery fire on a single target using the new CRT. The net gunnery strengths of all attacking ships are added together to determine the combat odds. The die is rolled, "2" is added to the number obtained, and the combat result is cross-referenced in the modified CRT. This procedure corresponds to an effective gunnery strength of about two-thirds the total strength, rather than the factor of one-half currently embodied in the rules. Thus we remove the unreasonable situation that two ships of equal strength firing on the same target are no more effective than one, and at the same time we retain the penalty for trying to plot fire on a target partially obscured by the shell splashes from another friendly ship.

Figures 1 and 2 present examples illustrating the application of these alternate gunnery combat rules and the use of the modified CRT. In *Figure 1*, the USN CL-1a (hex 2610) and CA-2d (hex 3210) have one P hit apiece. Both ships can fire broadsides at the IJN CA-1d (hex 3006), which already has two P hits. The combined gunnery strengths are  $13 + 9 = 22$ , yielding 4-1 odds. The die roll is 5, and 2 is added to it because of the combined gunfire. Cross-referencing a die roll of 7 at odds of 4-1 gives a result of "no effect."

In *Figure 2*, the IJN DD-4b is now in hex 3207 with one W hit. The USN CL again fires a broadside at the IJN CA, but the USN CA splits its fire. The attack on the CA is at a combined gunnery strength of  $6\frac{1}{2} + 9 = 15\frac{1}{2}$ , yielding 3-1 odds with 2 added to the die roll. The attack on the DD is at a gunnery strength of  $6\frac{1}{2}$ , yielding 3-1 odds with no addition to the die roll. Note that if the IJN DD wished to fire on the USN CA (if this was the IJN player-turn), it would do so with a net gunnery strength of 1, since its face value gunnery strength has been reduced by one-third due to the W hit, and by one-half due to the Line of Fire passing through its bow hex.

#### [7.0] TORPEDO COMBAT

We agree with the earlier MOVES articles that the torpedo rules are greatly oversimplified, and so are quite inadequate. For example, cruisers shoot torpedoes at full effect in the game, yet a glance at any deck plan shows that their torpedo tubes were grouped on opposite sides of the ship. Only half the total number of tubes could be fired at any one target. Although destroyers, generally employing multiple tubes on a rotating mount, were free of this restriction, they shared the constraint that torpedoes could not be fired directly forward or aft. The following rules are proposed to reflect these (and other) historical facts, as well as to further emphasize the importance of proper tactical maneuver.

#### [7.16] Effect of Facing on Torpedo Combat

Torpedo-armed cruisers may fire only half of their net torpedo strength, rounding fractions to the nearest integer, at any one target. (Remember that W hits reduce torpedo strengths in the same manner as gunnery strengths.) Since port and starboard torpedo tubes are fired independently, they may also be fired simultaneously. Of course, the targets must be on opposite sides of the ship, and rare is the armchair admiral who will offer such a tempting situation. Likewise, port and starboard tubes are reloaded independently, and simultaneously if need be. In consequence of this rule, detailed records must be kept regarding the loaded/fired/reloading status of each set of tubes. (SiMove pads are handy for this.) But the additional realism far outweighs the complication of the necessary bookkeeping. Another obvious rule is that the Line of Fire must not pass through the bow or stern hexes adjacent to the firing ship. Firing down the hexside of the bow or stern hex is permitted, however.

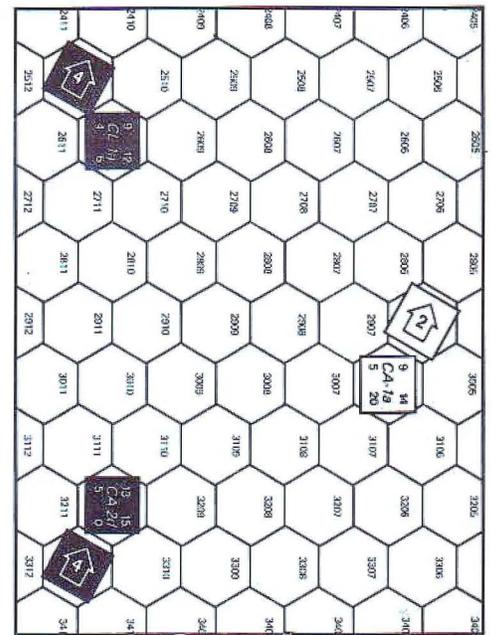


Figure 1

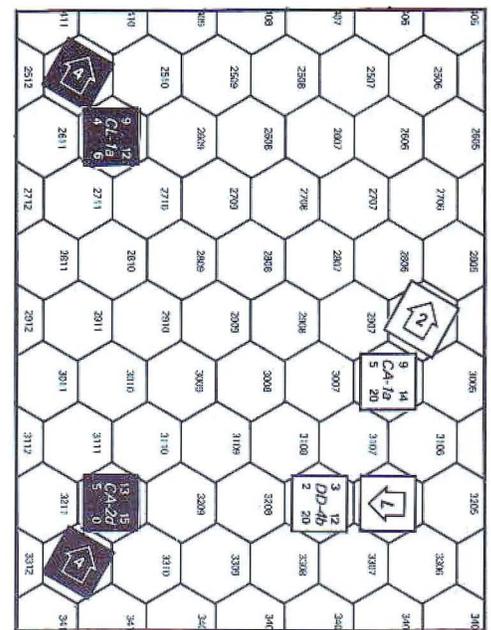


Figure 2

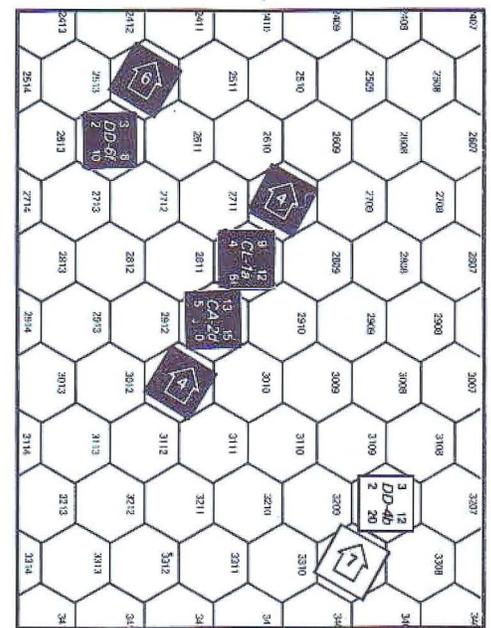


Figure 3

[7.44] Contrary to the original "CA" rules, we maintain that torpedoes cannot be fired through another ship, friendly or enemy, at a more distant target. If the Line of Fire passes through an occupied hex, the intended target may not be fired at. If the Line of Fire coincides with a hexside of an occupied hex, the target may be fired at unless this hexside is common to two adjacent occupied hexes. For the purpose of this rule, all torpedo attacks are considered to take place simultaneously. Thus a ship sunk by one torpedo attack still blocks the Line of Fire for other torpedo attacks in the same player-turn.

#### [7.33] Torpedo Spreads

This rule regards torpedo spreads. A spread of torpedoes may be fired at two enemy ships provided (1) they occupy adjacent hexes, (2) they are at normal, not extended range, and (3) an unobstructed Line of Fire can be traced to both. In this case, each target is attacked at one-half of the torpedo load fired (i.e., an additional reduction after the effect of W hits and cruiser torpedo restrictions. *Note:* just as in Gunnery Combat, ships dead in the water are immune to rules involving bow and stern hexes. D.I.W. cruisers are still halved, but the owning player may freely choose whether the port or starboard tubes will fire.

Figures 2 and 3 present examples illustrating the use of the new torpedo attacking rules. In Figure 2, the situation is the same as in the earlier example. The IJN CA has a torpedo strength of 20, but since both of the USN ships are on its port side, only half of this strength can be fired. The cruiser may attack the CL at 2-1 odds or the CA at 2-1 odds. In either case only the port torpedo tubes require reloading. The IJN DD cannot launch torpedoes at the USN CA because of facing restrictions, but a clear Line of Fire can be traced to the USN CL. Due to the W hit, the destroyer has a net torpedo strength of 14, so it can obtain 3-1 odds on the target.

In figure 3, the undamaged IJN DD-4a (hex 3208) is engaging three USN ships, CL-1a (hex 2810), CA-2d (hex 2911) and DD-2b (hex 2612). The IJN DD cannot fire torpedoes at the USN DD because the Line of Fire is blocked. However, it can fire a torpedo spread at the cruisers. Each attack is resolved separately, with a torpedo strength of 10 applied to each target. Both attacks are at 2:1 odds.

#### [7.64] Radar Rules

In the "CA" article in S&T #38, David C. Isby pointed out the substantial advantage the Americans held over the Japanese with the development of search and fire control radar. U.S. ships employed advanced search radar by October of 1942 (Battle of Cape Esperance), but even inferior Japanese equipment was not available until considerably later. The following rules simulate the sighting advantages offered by search radar.

In any night scenario dated later than August of 1942, all USN ships can spot IJN ships at a range of 30 hexes. In any night scenario dated later than June of 1944, all IJN ships of the classes BB-1, BB-3, and CA-2 can spot USN

ships at a range of 15 hexes. For the sake of simplicity, radar is immune to all damage, and a single radar-equipped ship can spot for any number of non-radar-equipped ships.

#### [4.5] Damage Control Phase

In order to reflect the often remarkable ability of heavily damaged ships to build up steam, rig emergency steering, and so forth, we have inserted a Damage Control Phase after the Acceleration/Deceleration Phase of each player-turn. During the Damage Control Phase, the phasing player rolls a die for each of his ships with power damage. A die roll of 6 removes one P hit (erase one check in the P hit columns of the SiMove pad). Such ships may accelerate as usual in the following game-turn. A ship which was D.I.W. may move off in any direction the owning player wishes. As a ship could be made seaworthy more easily than a turret could be repaired, damage control applies only to power damage. Once inflicted, W hits are permanent. This aspect of the rule ignores the fact that turret movements are intimately linked to the ship's power plant, but such simplifications often spell the difference between suitable realism and unnecessary nit picking.

[7.51] *Freak Gunnery Hits.* Both our modified CRT and the original one categorize the damage caused by direct hits or very near misses into two abstract types: (1) Power hits, representing impairment of the seaworthiness of the hull and wreckage of essential propulsion equipment; and (2) Weapon hits, representing massive destruction of deck facilities, especially turrets. But on occasion a W-type hit would have a secondary effect. Fires could break out in a dozen places at once, or intraship communications could be lost. Whatever the specific calamity, most often it would be controlled within a short time. To simulate this aspect of naval warfare which frequently bedeviled the larger vessels, we present the Freak Hit Table.

Whenever a W hit is obtained on a ship other than a DD, a Freak Hit may occur. Roll the die; if the result is a 1 a Freak Hit has indeed

occurred. Roll the die again to determine the specific additional consequence of the W hit according to Table 2. Unless otherwise stated, the Freak Hit takes effect in the next player-turn (i.e., the owning player's) and lasts that player-turn only. Note that the Table is rolled only once if two W hits are scored. It is not rolled at all if the W hit is ignored due to the previous accumulation of three W hits.

#### [12.1] AUXILIARY VESSELS

The following rules involve "naval opportunity fire" employing vessels omitted from the counter mix, submarines and PT boats. These rules, as is our intention, emphasize the importance of tactical maneuver. One can lure his opponent's forces into the jaws of a lurking submarine, or call in PT boats to thwart a potential torpedo attack by a destroyer.

[12.11] *Sneak Submarine Attack.* Each player receives one submarine attack per scenario. At the beginning of the game, each player secretly writes down the hex location of his submarine and the game-turn on which the sub will be ready to fire. The location may be any full-sea hex, but the attack may not be plotted to occur earlier than game-turn 3. Both USN and IJN submarines have a torpedo strength of 10.

The attack is resolved at the end of the Damage Control Phase of the enemy game-turn. The sub automatically fires at the largest enemy ship, within four hexes of its position, which satisfied two additional conditions. First, no attack can be conducted at less than 1-2 odds. Second, an unobstructed Line of Fire is required. If no enemy ship is within four hexes, if all potential targets have defense strengths greater than 20, or if friendly ships block the Line of Fire (a blocking enemy ship would be shot at instead), the Sneak Submarine Attack is simply lost. Neither the torpedo spread nor the extended range options may be employed. Without seriously affecting the play balance, this rule vividly recreates the frustrations of

FREAK HIT TABLE

Die Roll	Type of Hit	Consequence
1	scout plane on fire	no Damage Control Phase; additionally, for night scenarios, spotted during next enemy player-turn
2	gun director knocked out	no gunfire allowed, but torpedoes may be launched
3	bridge hit	ship must move straight and cannot change speed
4	magazine explosion	one additional W hit scored immediately and permanently (ignored if three W hits already accumulated)
5	steering gear jammed	ship must expend full MA circling in same hex (excess movement points dropped)
6	ammo hoist wrecked	gunnery strength reduced by one-third; torpedo strength unaffected

coordinating slow-moving submarines with surface actions, a role for which the doctrine of both navies called.

[12.12] *PT Boat Attack*. In each scenario involving land, the USN player receives one PT boat attack. Once during any IJN Gunnery Combat Phase, the USN player designates a single Japanese DD as the target of the PT boat attack. This DD cannot fire either guns or torpedoes, and in the subsequent Movement Phase it must turn two hexsides away from the nearest USN ship and expend the remainder of its movement points in a straight line. This rule represents a diversionary attack by PT boats on an enemy destroyer (PT boats take on cruisers and battleships only in old war flicks), which then turns to avoid the torpedoes launched and uses its armament to chase the boats away. No damage is ever inflicted on the destroyer, of course.

#### [9.1] NEW SCENARIOS

The history of surface actions in the Pacific is not so sparse that we couldn't find material for two more scenarios representing actual engagements. Below we list Scenario 13, an early cruiser-destroyer battle, and, following that, Scenario 14, a little-known encounter in the Aleutians. (For those who count only ten scenarios in the rules folder, Scenarios 11 and 12 appeared in MOVES #11.)

#### SCENARIO 13:

JAVA SEA, 27 FEBRUARY 1942

[NO LAND]

Hex Number	Ship Type	Speed Heading
<b>IJN Player:</b>		
4205	2 Myoko CA-2	4/sw
4305		
4004	1 Kuma CL-2	4/sw
4406	1 Agano CL-4	4/sw
4104	4 Fubuki DD-2	4/sw
4203		
4303		
4402		
4502	2 Kagero DD-4	4/sw
4601		
4506	5 Asashio DD-3	4/sw
4605		
4705		
4804		
4904		
<b>USN Player:</b>		
5130	2 Northampton CA-2	4/nw
5230		
5331	2 Atlanta CL-4	4/nw
5431		
5029	1 Leander CL-6	4/nw
5031	6 Belson DD-5	4/nw
5232		
5532		
5632		
5733		
5833		
4830	4 Mahan DD-2	4/nw
4928		5/nw
4828		5/nw
4729		5/nw

GAME-LENGTH: 15 Game-Turns.

SPECIAL RULE: Daytime; the usual nighttime sighting restrictions are suspended.

VICTORY CONDITIONS: Based on point schedule (below). ISN ships not exited from west edge of the map by turn 15 are considered sunk.

#### SCENARIO 14:

KOMANDORSKI, 26 MARCH 1943

[NO LAND]

Hex Number	Ship Type	Speed Heading
<b>USN Player:</b>		
3226	1 Pensacola CA-1	3/n
3223	1 Omaha CL-1	3/n
3222	2 Benson DD-5	3/n
3224		
3225	2 Craven DD-3	3/n
3227		
<b>IJN Player:</b>		
1805	2 Myoko CA-2	4/n
1806		
1807	2 Kuma CL-2	4/n
1808		
1809	4 Fubuki DD-2	4/n
1810		
1811		
1812		

GAME-LENGTH: 12 Game-Turns.

SPECIAL RULE: Daytime; the usual nighttime sighting restrictions are suspended.

VICTORY CONDITIONS: Based on point schedule below. USN ships not exited from west edge of the map by turn 15 are considered sunk.

#### [9.2] VICTORY POINTS

The victory conditions outlined for each scenario often seem to be strategically-oriented constraints on a completely tactical situation. Furthermore, our suggested rules modifications tend to render the victory conditions unattainable by both sides. Thus below we offer a Victory Point Schedule as a blanket replacement for all the original victory conditions. The player who best maneuvers to inflict the greatest punishment on the enemy (i.e., scores more points) is the winner. Points are awarded for sinking in lieu of points for individual hits. W and P hits are awarded points equally. No points are awarded for P hits removed by successful Damage Control. Nor are points given for any type of hit ignored because three of that type had already been accumulated by the target.

#### VICTORY POINT SCHEDULE

class	points per hit	points for sinking
BB	5	30
BC	4	24
CA	2	12
CL	1	6
DD	½	3

#### Postscript: Omitted Rules

As a final note, we will reflect on some rules which, at face value, seemed to be natural additions to "CA." Each one, however, contains a fatal flaw that in some way upset either playability or historical accuracy.

*Collisions*. "A collision at sea can ruin your day," but not when the sea is blue-printed paper. Friendly ships, even battleships, collided with exasperating frequency. But the Pacific Ocean in "CA" is dead calm, with unlimited visibility, and with perfect ship-to-ship communications—negating the major reasons for the occurrence of collisions. In terms of the game itself, a collision rule would have to involve two ships present in the same hex. But a halfway competent player can easily avoid "stacking" his ships, and keeping track of hexes through which two ships happen to sail requires back-breaking book-keeping.

*Air Power*. All seem to agree on the lack of merit of merging "CA" into "Fast Carriers." But why not the reverse? Air power could be the equivalent of off-board artillery in the land tactical games. Unfortunately, as the S&T article pointed out the presence of aircraft in a naval battle was not an auxiliary factor, but the deciding factor. Imagine the frustration of a player who maneuvers his ships with consummate skill, only to have them smashed by an invisible and irresistible force. The historically faithful application of air power is just no fun.

*Smoke*. At first, such a rule appeared to be a mandatory addition. In both history and miniatures games, smoke screens frequently sprang up to mask the movement of capital ships or protect damaged ships. In "CA," reasonable smoke rules instead created "instant terrain" which players exploited in a most ahistorical manner. One dirty trick called for heavy ships to fire broadsides, then light ships to lay a smoke screen protecting them from return fire. Rather than cook up a convoluted rule to prevent these shenanigans, with regret we omitted smoke altogether.

*Command Control*. By analogy to land tactical games, we considered it appealing to add "panic" to naval actions. At random, certain ships would not function as the "Task Force Commander" intended. Panicked ships could move off unpredictably, launch uncoordinated torpedo attacks, fire on the wrong target or even on friendly ships. Naval history is full of such blunders. Yet on closer inspection, the analogy proved false. A cruiser steaming past Savo Island is *not* in the same situation as a platoon of Tiger tanks clanking through Arracourt. If nothing else, the man on the bridge is many pay grades higher than the man in the turret! "Panic" in this sense is not justified—the autonomy and initiative of the modern ship captain largely cancel out presumed communication difficulties. True, many of the scenarios featured bonehead actions by the participants in the actual event. But to properly depict these situations, a straightjacket of *ad hoc* rules would be necessary—a straightjacket which "CA" neither demands nor deserves.