

Siege Just Add Water

Naval rules for Constantinople

by Richard Berg

Sometimes an S&T game design takes on a life of its own and inevitably grows beyond the parameters of the issue. Happily, in this case, that which filled the bag too full was a completely independent sub-system of the game in question. To make the counters, xerox the art below, colour with pencils or magic markers, and carefully double mount them on good cardboard. Note that the art is arranged for backing up along the vertical axis. Got that? - RAS

As originally designed, Constantinople included a rather long and detailed naval game. For a variety of reasons - all given in the body of the rules specific in the issue - the naval game was excised. For those gamers interested in this aspect of the siege, as well as those history buffs desirous of having a complete picture, we are herewith publishing complete rules for the naval actions that took place at the siege. In addition, sample counters are printed for the naval units.

Additions to the Game-Map

The hexes comprising the coast along the seaward walls are dotted with shoals and reefs. These are represented on the game map by numbers, which correspond to the shoals and are covered in Case 15.53.

Number Hexes

2	3334
3	2234, 2133, 2132, 2131, 1119, 1018, 0124, 0114, 0113
4	3335, 3235, 3136, 3036, 2937, 2837, 2435, 2335, 2233, 2029, 1926, 1724, 1723, 1622, 1522, 1521, 1420, 1320, 1219, 0918, 0818, 0718, 0617, 0517, 0315
5	2737, 2636, 2536, 2028, 2027, 2026, 0316

In addition, The Gate of the Lighthouse (2536) and Gate of the Contoscalion (2129) are missing and should be drawn on the map.

Counters

The counters have been provided to accompany the Naval rules. Players may wish to mount the cut-out units on cardboard to facilitate play. Players should note that all Byzantine Naval units are galleys.

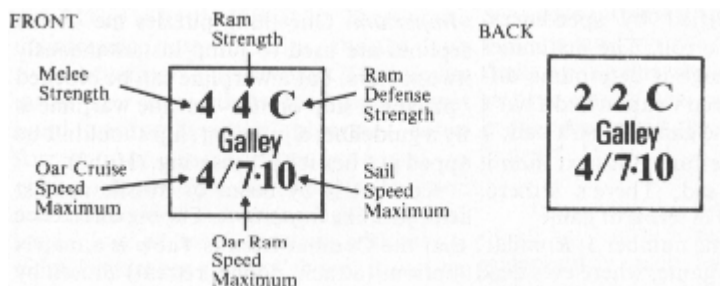
OTTOMAN UNITS (Front)					OTTOMAN UNITS (Back)						
4 4 C Galley 4/7-10	4 4 C Galley 4/7-10	4 4 C Galley 4/7-10	4 4 C Galley 4/7-10	4 4 C Galley 4/7-10	2 2 C Galley 4/7-10	2 2 C Galley 4/7-10	2 2 C Galley 4/7-10	2 2 C Galley 4/7-10	2 2 C Galley 4/7-10		
3 3 B Trireme 5/8-12	3 3 B Trireme 5/8-12	3 3 B Trireme 5/8-12					2 2 B Trireme 5/8-10	2 2 B Trireme 5/8-10	2 2 B Trireme 5/8-10		
2 3 B Bireme 6/8-12	2 3 B Bireme 6/8-12	2 3 B Bireme 6/8-12	2 3 B Bireme 6/8-12	2 3 B Bireme 6/8-12	1 2 B Bireme 6/8-12	1 2 B Bireme 6/8-12	1 2 B Bireme 6/8-12	1 2 B Bireme 6/8-12	1 2 B Bireme 6/8-12		
1 2 A Fustae 6/9-12	1 2 A Fustae 6/9-12	1 2 A Fustae 6/9-12	1 2 A Fustae 6/9-12	1 2 A Fustae 6/9-12	1 1 A Fustae 6/9-12	1 1 A Fustae 6/9-12	1 1 A Fustae 6/9-12	1 1 A Fustae 6/9-12	1 1 A Fustae 6/9-12		
1 2 A Fustae 6/9-12	1 2 A Fustae 6/9-12	1 2 A Fustae 6/9-12					1 1 A Fustae 6/9-12	1 1 A Fustae 6/9-12	1 1 A Fustae 6/9-12		
BYZANTINE UNITS (Front)					5 0 D Crete 0/0-12	5 0 D Medtrn 0/0-12	BYZANTINE UNITS (Back)				
8 0 D Genoa 0/0-12	7 0 D Genoa 0/0-12	7 0 D Venice 0/0-12	6 0 D Impri 0/0-12	6 0 D Impri 0/0-12	1 0 D Medtrn 0/0-12	1 0 D Crete 0/0-12	1 0 D Impri 0/0-12	1 0 D Impri 0/0-12	2 0 D Venice 0/0-12	2 0 D Genoa 0/0-12	2 0 D Genoa 0/0-12

Rules

[2.0] (addition after the eighth line). First, the Players undertake Naval Movement and Combat, one Player moving his ships before the other player, after which there is a mutual Naval Combat Phase. This segment is repeated five times ("impulses") to create one complete Naval Phase. (The Naval Phase is used only in the Campaign Game). After the Naval Phase...

[3.2] (addition) Naval units have strengths for Ramming and Melee, as well as movement capabilities.

[3.22] (addition)



[3.33] (addition) The Wind Direction Table, the Wind Velocity Table, The Naval Melee Combat Results Table and the Ramming Table.

[3.4] (addition) As for the ships, each Byzantine naval counter equals 3-4 galleys. Each Ottoman naval "step" is the equivalent of 5-7 galleys, triremes, biremes, fustae and parandaria (troop barges).

[4.0] (addition, add at beginning of Sequence of Play)

1. The Naval Phase

A. Wind Determination Segment: Players determine the wind direction and velocity. Both are rolled for on the first Impulse of each Naval Phase only.

NAVAL IMPULSE (Segments B through E)

B. Initiative Segment: Players roll to determine who moves first in each Impulse. High roll goes first.

C. First Player Movement Segment: The Player denoted in Segment B to move first moves his ships according to the rules for such. Attempts to Ram occur in this segment.

D. Second Player Movement Segment: The Second Player moves his ships, as per Segment C.

E. Mutual Combat Segment: Players engage in combat engendered by Segments C-D. Ships sunk are removed from play. Segments B through E are repeated a maximum of five times, each segment being an Impulse. Players may, by mutual agreement, use fewer than five Impulses, but never more.

[5.17] (addition) Begin line 6 "...combat unit, there is a sea assault, or Game-Turn 15, whichever comes first. See Case I .13 for details..."

[5.39] (addition) Naval units may enter coastal hexes of Galata, even if they are transporting land units, but they may not land such units in Galata.

[6.12] (addition) Naval units do not exert a ZOC, nor are they affected by Land units' ZOCs.

[7.16] (addition at end of line 3) ...or get their navy into the Golden Horn and use it as a transport. They may embark on ships and assault the Seaward Walls.

[7.32] (addition in 2nd line, after "on land ") This includes land units transported to the southern shore of the Golden Horn or landed by Naval Assault on the Seaward Walls. See 15.5.

[7.44] (addition at end of paragraph) Units that may retreat to Ottoman ships may do so, but Players must remember that only one unit may be transported per ship.

[8.26] (addition) Fire Combat does not affect naval units or land units being transported by naval units.

[10.16] (addition) Artillery units may not be transported by ship.

[11.41] (rewrite) On the Game-Turn after the Ottoman Player places at least five naval units in the Golden Horn at the same instant, he may assume that there is a bridge between Pera and the Blachernae Assault Area.

[13.0] THE NAVAL GAME

COMMENTARY:

The naval portion of Constantinople is somewhat unusual in that it runs independent of but (abstractly) concurrently with the land portion of the siege. By that, we mean that the naval game is ongoing, while the land game is divided into alternate periods of bombardment and assault.

In the land game the combat units retire at the end of an assault period; in the naval game the ships remain in place until the next Naval Phase. Unlike the land game the Naval Phase is divided into five Impulses in which four Segments of the sequence of the Naval Phase is repeated five times (see Sequence of Play, Case 4.1). Thus, there are five individual "turns" within one full Naval Phase,

although by mutual agreement the Players may use less than five (e.g., if neither side wishes to move that Phase-"turn"). And while the naval game is somewhat independent of the land game it does affect the outcome of the siege simply because the city can be assaulted from the sea, and, furthermore, because possession of the Golden Horn is a key to victory. There are rules for eliminating the naval portion of the game for Players who wish to play a faster game. See Section 19.0 for details.

CASES:

[13.1] THE GENERAL COURSE OF THE NAVAL GAME

At the beginning of each Naval Phase the Players determine the Wind Speed and Direction (the Wind Direction at the beginning of the game is North - blowing North to South; its Speed is initially eight).

Each Player then rolls a die; the high die goes first for that Impulse. Thus, a Player could move his units twice in a row, if the die-rolls so indicated. The first Player moves his vessels, followed by the second Player. There is no combat during Naval Movement, with the exception that Ramming takes place during Naval Movement. After both Players have completed Naval Movement there is a mutual Combat Phase, with combat taking place simultaneously. The entire sequence, from Initiative Determination to Combat Phase is then repeated four more times until five Impulses - five repetitions of the Sequence - have been completed, or the Players stop by mutual agreement. The vessels are left where they stand at the end of five Impulses and play proceeds to the land game.

[13.2] THE NAVAL UNITS

The counters for the naval units represent a wide variety of vessels, both sail and oar. They do not represent individual ships (while the Byzantines had only 30 or so galleys the Ottomans had up to 400 ships of all kinds!); rather they represent groupings of ships with ratings based on capabilities, training, and general seamanship. However, an attempt has been made within the game system to give the Naval Portion of the game a sort of tactical, ship-to-ship feel. Players should note that Ottoman Naval units have reduced strengths on their reverse side, much the same as land combat units. Byzantine ships' counters have a reverse side, but it is not a reduced strength; it represents a reduced crew level when the sailors are removed for land duty (see Section 16.0).

[14.0] NAVAL MOVEMENT

GENERAL RULE:

Naval units may move either by sail or by oar. Some ships may move by both, switching between the two propulsion modes at the owning Player's discretion. In general, naval units move only through sea hexes. They pay a cost of one Movement Point (or two under certain circumstances) to enter any sea hex and they may pay a cost for manoeuvring (turning), dependent on the form of propulsion. All Byzantine naval units are galleys; they are all sail propelled. None are equipped with oars. The Ottoman Player has a polyglot collection of galleys, triremes and biremes, and the lighter vessels called fustae. The Ottomans use both sail and oar.

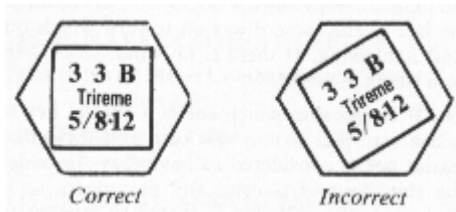
Numerically, the Byzantines were outnumbered by the Ottomans almost 15 to 1, but the seamen in the service of the Imperial Navy, the best of which were the Genoese and the Venetians, as well as the excellence of their huge galleys, more than made up the difference.

CASES:

[14.1] OAR PROPULSION NAVAL MOVEMENT

[14.11] Those naval units with Oar Movement Allowances (see Sample Units, Case 3.21) are capable of moving by oar. Naval units move from one hex to another, in a manner similar to land units moving on land. However, naval units may enter only all-sea or partial sea (coastal) hexes (see Case 15.53). They may never cross an all-land hex side (exception: see Case 17.1). Furthermore, each all-sea or partial-sea hex costs only one Movement Point to enter (exception: see Case 14.24).

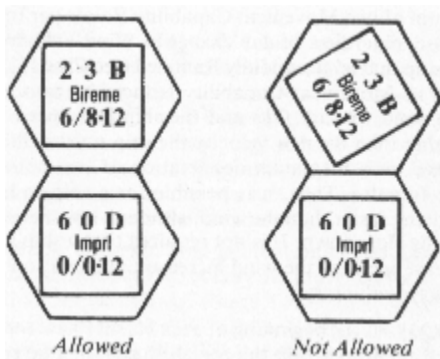
[14.12] Naval units are always faced in a specific direction. The top of the counter must always face toward a specific hexside. It may never face - or point to - a junction of two hexsides.



[14.13] Naval units (oar or sail) must always move into the hex toward which they are facing. Oar driven vessels may only change facing 60 degrees - or one hexside - for each hex they move. Oar-driven vessels must move one hex before changing direction (one hexside). Thus, for each 60 degrees or hexside an oar-driven vessel wishes to change direction it must move one hexside; e.g., to change three hex sides it must move three hexes, adjusting 60 degrees for each new hex entered. An oar-driven vessel may change direction after using its last Movement Point. There is no cost to change facing (see Cases 14.26 and 15.1).

[14.14] There are no Zones of Control in Naval Movement or Combat; furthermore, naval units never affect land units and vice-versa, with the exception that no Friendly land unit may ever enter a hex with an Enemy naval unit - and vice versa (but see Case 14.15).

[14.15] A Friendly naval unit may move through an enemy-occupied sea hex under certain conditions. For the Friendly unit to so move it must enter the hex through a hexside toward which either the bow or the stern of the Enemy unit is facing. It may not move through a hexside toward which an Enemy starboard or port side is facing. Furthermore, the Friendly unit may not remain in such hex and must leave through a hexside toward which an Enemy bow or stern is pointing (see Case 15.1).



[14.16] Oar-driven vessels have two speeds: Cruising Speed and Battle, or Ramming, Speed. Both speeds are maximums; the Player - as in land movement - is never required to use the full Movement Allowance when moving his vessels by oar. Normally a Player will use his Cruising Speed when moving his vessels, and he is thus limited to the maximum allowance at that speed. However, he may shift to Battle Speed at any time, within certain restrictions (see Case 14.17), and thus increase his speed.

Battle Speed is voluntary with the exception that the vessel must be in Battle Speed when Ramming.

[14.17] An oar-driven vessel may not use Battle Speed two Movement Segments in a row. Furthermore, a vessel using Battle Speed has a Cruising Speed of one in the Segment after the use of Battle Speed - even if that Segment is in the next Game-Turn!

[14.18] Certain Ottoman vessels have the use of both oar and sail. These vessels may change mode of propulsion in any Movement Segment. To change from oar to sail the vessel may move no more than one hex (in oar mode) that Segment. The next Segment the vessel is considered to be using sail and moves under the rules for sail propulsion with an initial Sail Speed of one. To change from sail to oar the ship may not have moved more than three hexes in the previous Movement Segment.

[14.19] Only one naval vessel is permitted per hex, with the exception during movement of Case 14.15. Furthermore, Ottoman naval units may anchor at the Double Columns, hex 3931, by placing as many Ottoman naval units as the Ottoman Player wishes in that one hex. Such units at anchor may never be attacked.

[14.2] SAIL NAVAL MOVEMENT

All movement under sail encounters two particular problems: momentum, which, in general, means that sail-driven ships tend to keep moving at the rate of the wind; and Wind Direction, which can dictate the speed and manoeuvrability of a vessel.

[14.21] Each naval unit using sail has a given movement capability for that Impulse. This is the number of Movement Points it must expend during that Impulse. Acceleration and Deceleration (see Case 14.22) may change this capability, but the capability for that Impulse must be used in its entirety. Movement capability is usually dictated by Wind Direction and Velocity. Ships entering the game at sea (using sail movement) enter the map with a movement capability equivalent to the Wind Velocity for that Game-Turn. Ships starting from "anchor" (thus with a zero Movement Capability) obey the rules for Acceleration.

[14.22] A Player may elect to increase or decrease the Movement Capability of his sail vessels (Accelerate or Decelerate). A sail vessel may never Accelerate more than one Movement Point (Capability) per Impulse; it may never Accelerate to a higher Movement Capability than the current Wind Velocity. A sail ship may Decelerate a maximum of two Movement Capability Points per Impulse, regardless of any change in Wind Velocity. A ship that is successfully Rammed (see Case 15.1) has its Movement Capability reduced to zero. If the wind velocity falls and the ship Sail Speed is higher than the new velocity the ship must reduce speed, at a maximum deceleration of two points per Impulse. Thus, it is possible for a ship to be moving faster than the wind, although it will eventually slow down. It is not required that a ship increase speed as the wind increases; acceleration is always voluntary.

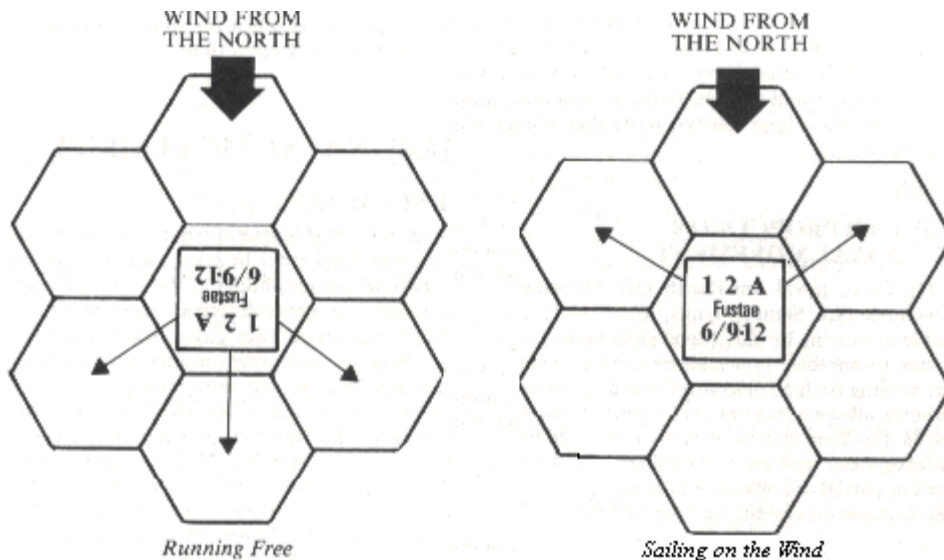
[14.23] At the beginning of each Naval Phase (not each Impulse within the Naval Phase) the Players determine the Wind Direction and Velocity for that entire Naval Phase. To do so a Player rolls two dice and refers to the Direction portion of the Table (14.31). He then rolls two more dice and refers to the Velocity portion of the Wind Tables (14.32). Thus, rolls of nine and seven, respectively, will produce a Northeasterly wind (i.e., a wind blowing from Northeast to Southwest) at a Velocity of eight.

Players may note Direction and Velocity by placing an appropriate marker on the game map in the Wind Direction hex (printed on the map) with the arrow pointing in the direction toward which the wind is blowing (in the above example, the counter would be placed with the arrow pointing toward the Southwest hex). The game begins with a Northern wind (blowing North to South) at a Velocity of eight.

[14.24] According to the facing of the vessel (see below) the wind may be blowing from the stern of the ship (called Running Free) or toward the bow of the ship (Sailing on the Wind). No vessel may ever sail directly into the wind; i.e., a sail ship may not move into a hex in a northerly direction if there is a Northerly wind (blowing from North to South). Furthermore, each hex that a sail ship enters that is "Sailing on the Wind" (wind blowing on the bow of the ship) costs two Movement Points. If the Movement Capability remaining to a ship Sailing on the Wind is one it must use the remaining Movement Point by turning 120° at a cost of one Movement Point (see Case 14.25).

[14.25] Sail ships move through sea hexes in the same fashion as oar-driven vessels (with the exception noted in Case 14.24). However, for sail vessels the ship counter realignment is different from oar vessels (see Case 14.13). A sail vessel may turn one hexside (60 degrees) for each hex that it enters without paying any Movement Points; it may change two hexsides (120 degrees) for each hex entered by paying a cost of one Movement Point for its Capability. Sail ships may never change facing more than two hexsides in a single hex; they must advance at least one hex further before making another turn. When a sail vessel changes facing by two hexes (120°), it may not change facing past a hexside through which the ship would be sailing directly at the wind.

Example: Wind Direction is North (North to South). A sail vessel in hex 1539 is facing toward hex 1639 (Sailing on the Wind). The sail vessel could not turn two hexes (120 degrees) to face toward hex 1538, because the sail vessel would have to face hex 1638 (which would face the sail vessel in the opposite direction of the wind) before it could face toward hex 1538. The sail vessel could, however, turn to face hex 1439, if the owning Player so wished.



[14.26] A ship (sail or oar) that is not moving may still turn one hexside, unless it has been Rammed and pinned. Ships that are not moving always drift one hex in the same direction toward which the wind is blowing. If there is no wind, ships drift from North to South.

[14.27] A sail ship which enters a coastal hex in such a way that it may not turn and leave that coastal hex is considered to have Run Aground. The ship counter - and any passengers - is eliminated. If a sail ship is forced to attempt to cross a Boom hexside (see Case 15.6) because of its momentum, etc., it stops in the hex adjacent to the Boom hexside and is considered Damaged for the remainder of the game (see Case 15.34). It does not move through the Boom hexside. For the next Impulse, the sail ship's Movement Capability is considered zero, and it obeys the rules for Acceleration (see Case 14.22). A sail or oar vessel that leaves the map - for whatever reason - is treated exactly as a sail vessel that has Run Aground.

[14.28] Sail ships (and oar ships using Sail Movement) are not capable of Ramming.

[14.29] In the event that the Wind Velocity is Storm, all ships (sail or oar) in the Golden Horn or at anchor (i.e., in a coastal hex with a "0" movement rate) may not move that Game-Turn. For ships at sea (in the Sea of Marmora) the owning Player rolls a die for each ship unit. If the owning Player rolls a six for a given ship unit that unit is eliminated, along with any passengers. For all other numbers (i.e., 1 through 5), the Ottoman Player returns his ships to the Double Columns (hex 3931); the Byzantine Player places his ships in either the Harbor of Eleutheris (hexes 1823, 1924, etc.), hex 2129, hex 2130 or hex 2234. There is no other movement that Game-Turn. Ships that are pinned from Ramming are automatically sunk.

[14.3] WIND TABLES

[14.31] Wind Direction Table

[14.32] Wind Velocity Table

[14.3] WIND TABLES			
[14.31] WIND DIRECTION		[14.32] WIND VELOCITY	
<i>DIE</i>	Direction (from)	<i>DIE</i>	Velocity
2	SE	2	Storm
3	SW	3	9
4	S	4	2
5	NW	5	10
6	NW	6	7
7	N	7	8
8	N	8	6
9	NE	9	12
10	NE	10	4
11	S	11	No Wind
12	SW	12	11

[15.0] NAVAL COMBAT

COMMENTARY:

The fifteenth century was a great watershed for naval combat. The advent of sailing vessels of ocean-going capability along with the development of gunpowder and artillery was to change naval warfare forever. Yet, in the Mediterranean, the galley was still Queen of the Sea. The main method of destroying the enemy at sea was boarding. Catapults and Greek Fire were also used, and ramming was still in fashion (but to a much more limited extent than in Greco-Roman days). But hand-to-hand combat was still the staple of the navy and the rules for naval combat, given the scale of the game, reflect this.

CASES:

[15.1] RAMMING

The object of Ramming, primarily, is to pin the opposing vessel so that it may not move making it an easy target for boarding parties. There is a possibility that Ramming will sink an opposing vessel; Ramming can also damage the Ramming ship. Only oar-driven vessels may Ram.

[15.11] For an oar-driven vessel to Ram, it must be using Battle Speed and it must start the Ram attempt at least three hexes from the intended target.

[15.12] Vessels attempting to Ram an opposing vessel may make no more than one 60 degree (one hex side) turn during the entire course of its Ram attempt, and such turn must be at least two hexes distant from the target hex.

[15.13] In order to Ram an opposing vessel, the moving vessel must move into a hex adjacent to the target vessel. That adjacent hex must be either to the port or starboard (the sides) of the target vessel.

One cannot Ram a target vessel from the bow or stern (front or rear). Furthermore, the bow of the Ramming vessel must point directly toward the side of the target ship (envision Ramming literally and

you'll get the idea). Ramming is performed in a Movement Segment; it is not considered combat, per se.

[15.14] Once the precepts of Case 15.13 have been satisfied and the Phasing Player has announced that he is making a Ram attempt, he checks his Ramming vessel's Ram Strength against the Ram defence Strength of the target vessel. He cross-references these on the Ramming Table (15.42). The result is the number that the Phasing Player must roll on a die for the Ram to succeed. If the Ram does not succeed the Movement Segment is ended for the Ramming vessel in the hex adjacent to the target vessel. Such vessel may not engage in boarding and melee (as he is faced in the wrong direction; see Case 15.22).

[15.15] If the Ram attempt is successful the two ships are considered "engaged," both dead in the water (see drifting, Case 14.27). However, under certain circumstances the target ship may be sunk and/or the Ramming ship Damaged. Consult the Ramming Table (15.42).

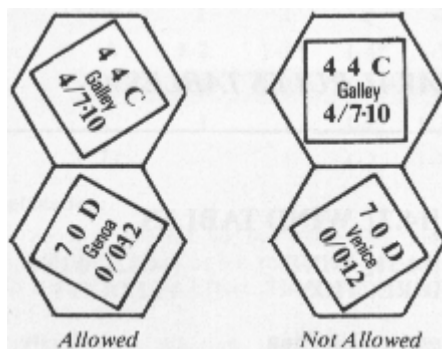
[15.16] Once Rammed both ships may attempt to free themselves, if so desired. At the beginning of a Movement Segment the Player with the Rammed ship rolls a die; if he rolls a 1, the ship breaks free but is considered Damaged. It may then move; otherwise, it is still engaged. If the Player with the Ramming ship desires to free the Ramming ship, he rolls a die. If he rolls a 1, 2, or 3, he breaks free with no damage; otherwise, the ships remain engaged.

[15.2] NAVAL MELEE COMBAT

Naval Melee Combat represents all close, ship-to ship actions, including short-range catapults, Greek Fire, and, of course, boarding.

[15.21] Naval Melee Combat takes place in the Mutual Combat Segment of the Naval Phase. Only Friendly vessels adjacent to Enemy vessels may engage in melee. There are no Zones of Control at sea, and combat is purely voluntary. Melee is simultaneous, i.e., the Friendly vessel is attacking the Enemy vessel and vice-versa at the same time.

[15.22] To engage in naval combat ships must be adjacent to each other. Moreover, both of these counters must either be engaged (15.15) or adjacent through a port or starboard facing hexside. If both ships are not so situated the melee combat is impossible.



[15.23] Combat is voluntary. To determine the results of combat the attacker adds the Melee strengths of all his attacking units and subtracts the Melee strength of the defending unit. The result is the Combat Differential.

Example: two ships with a strength of 4 each attack a ship with a strength of 5. The differential would be +3. If the ship with the Melee Strength of 5 attacked one of the ships with a melee strength of 4 (see Case 15.24) - remember, melee is simultaneous - the differential would be +1.

[15.24] As many as four Friendly ships may attack an Enemy vessel. Four is the maximum because of the restrictions in Case 15.22. If a Friendly ship is adjacent to more than one Enemy ship it must either attack all of them or none of them (simultaneously with the Enemy attack, of course). To do this it may split its melee strength in any way it sees fit. When splitting, the lowest voluntary differential is 3. However, if a ship is adjacent to more enemy ships than it has melee points it must attack the

strongest ship(s) at 0 and the rest at 1 or not attack at all. When one Friendly ship is adjacent to a sole Enemy ship it always uses its maximum strength.

Example: A Byzantine Galley with a melee strength of 8 is adjacent to, and capable of melee with, three Ottoman ships with melee strengths of 5, 3, and 2. The Ottoman attacks the Byzantine at +2. S

Simultaneously, the Byzantine uses two points to attack the 5 at -3, one point to attack the 3 at - 2, and the remaining five points to attack the 2 at +3.

Remember, when splitting strength, the lowest differential you may voluntarily attack at is -3.

[15.25] Combat is mutual and simultaneous; both Players engage in melee at the same time. Losses are taken only after both Players resolve their individual battles. Thus, a ship Damaged by Player A's die-roll may still fight at its normal strength in the same Combat Segment that it was Damaged. All Melee Combat Results are applied after both Players have finished their attacks.

[15.26] Leaders have no effect on Naval Combat, with the following exception. Any Byzantine naval unit commanded by either Diedo or Trevisano (stacked with the ship counter) adds one to the ship's Melee Strength for defensive purposes only.

[15.3] EXPLANATION OF COMBAT RESULTS

[15.31] All Melee Combat takes place using the Naval Melee CRT (15.41). The attacker determines his total strength and subtracts that of the defender in order to obtain a Combat Differential (see Case 15.24). He then rolls a die and refers to the Naval Melee CRT to obtain a result, if any, of that battle.

Remember, because of simultaneous combat, the roles of attacker and defender will often be reversed.

[15.32] No Effect means that nothing has happened in the way of casualties.

[15.33] Ineffective means that the ship unit suffering such result is halved in movement (rounding down) for the next Movement Segment. It may not attack/melee in the next Mutual Combat Segment, it may defend.

[15.34] Damaged means that the affected ship unit is permanently halved in Movement Allowance (or maximum Movement Capability for sail ships).

In addition, the Damaged ship's Ramming defensive strength is permanently halved (but not its Ramming Capability). Melee is not affected.

[15.35] Lose One means that, for Byzantine ship counters, the unit is eliminated. For Ottoman ship units it means that the naval unit is flipped over to its reduced strength level, unless said naval unit is already at reduced strength level, in which case the Ottoman naval unit is eliminated. The Ottoman

Player should note that a Damaged ship that is flipped over retains its Damaged status.

[15.4] NAVAL COMBAT TABLES

[15.41] Naval Melee Combat Results Table

[15.41] NAVAL MELEE COMBAT RESULTS TABLE (Boarding)

Combat Differential (Attacker minus Defender)

DIE	-3	-2	-1	0	1	2	3	4
1	-	-	-	-	-	-	I	I
2	-	-	-	-	-	I	D	D
3	-	-	-	-	I	I	D	D
4	-	-	-	I	I	D	D	L
5	-	-	I	D	D	D	L	L
6	-	I	D	D	D	L	L	L

Explanation:
 - = No effect; I = Ineffective: for the next Impulse, the ship's Movement Allowance is halved, and the ship may not melee attack, only defend; D = Ship permanently damaged: ship's Movement Allowance is halved, as are its Ram and Melee Strengths; L = Lose 1: for Byzantine ships, the affected ship is eliminated. An Ottoman ship loses one step (i.e., it is flipped over to the reduced side unless the ship is already on its reduced side, in which case the Ottoman ship is eliminated). Differentials less than -3 (greater than +4) are treated as -3 (+4).

[15.42] Ramming Table

[15.42] RAMMING TABLE

Ram Defense: Non-Phasing Ship	Ram Strength of Attacking (Moving) Ship			
	1	2	3	4
A	1-2	1-3*	1-4*	1-5*
B	1	1-2	1-3*	1-4*
C	1	1	1-2	1-3*
D	-	1	1-2	1-2

Explanation:
 # = Die Roll Needed to Pin Defending Ship;
 * = Roll again; if a 5 or 6 is rolled, the defending ship is sunk; - = No Effect. The Defending ship may not be pinned.
 If a 6 is rolled at any time, the Ramming ship is considered Damaged (Movement Allowance halved, Ram and Melee Strengths halved).

[15.5] NAVAL ASSAULTS

The Ottoman Player may use his ships to carry land combat units in an attempt to assault the seaward Walls of the city - those Walls his land army cannot reach by normal means.

[15.51] The Ottoman Player may transport land units on his ships. He may transport one land combat unit for each full-strength naval unit; naval units not at full strength may never transport land units. Land units may be embarked in coastal hexes. To pick up a land unit, a naval unit spends one full Naval Movement Segment (of an Impulse) in the same coastal hex as the Friendly combat unit. In the next Segment the naval unit plus the land unit may move on.

[15.52] Ships carrying land combat units are not affected in terms of movement or naval combat.

[15.53] There are certain coastal hexes along the eastern and southern shores of the city that have numbers in them. These numbers represent the difficult currents in the Sea of Marmora and the dangerous reefs and rocks along the city Walls. For any ship (Ottoman or Byzantine) to safely enter one of these hexes the owning Player must roll a number higher than the number listed in the hex. If the owning Player throws a number equal to or lower than the number in the hex the ship counter (and any land unit on the ship counter) is eliminated. Exception: Byzantine units (only) moving into any of the hexes listed in Case 14.29 do not have to roll for possible elimination.

[15.54] Naval units may debark land units in any coastal hex with two exceptions:

(a) land units may not debark in a hex which they must cross a Wall hexside to reach (see Cases 15.55 and 15.56); and

(b) land units may not debark in Calata. Remember that stacking rules prohibit more than one land combat unit in a hex (though there is no limit to the number of Leaders).

[15.55] Ottoman land combat units and Leaders placed in coastal hexes may not move or attack until an Assault Phase. (Siege Towers may never be transported by sea, as is the case with all Ottoman artillery.)

Regardless of the configuration of the hex and the Wall, such units are considered to be outside the city until they can move across the Wall in an Assault Phase. Ottoman combat units in hexes such as 2028 where the Wall runs along the edge of the geographical city are considered to be ships waiting to climb the Walls. Such land units are considered to be - for combat and assault purposes - in an unfilled Foss hex. Combat units landing in a clear hex (e.g., hex 1521) treat that hex as normal clear terrain. Remember, it costs three additional Movement Points to cross an Outer (or seaward) Wall.

[15.56] Land units (on ships) in sea hexes adjacent to Walls that run along the edge of the city (e.g., hex 2028) may not move into any hex except across a Wall hexside into a city hex. They may not move laterally along the Wall (outside the city). They may, of course, move out to sea again.

[15.57] The previous two rules (Cases 15.55 and 15.56) must be interpreted in the light of the laws of nature and common sense. Most of the seaward Walls were literally built up from the sea, and Players should remember this when interpreting the rules.

[15.58] Ottoman units assaulting Seaward Walls that receive an R result are eliminated, unless there is a ship available for them to retire to or they are three hexes from the Inner Wall and may trace a line of hexes exclusive of enemy units or ZOCs (for this purpose friendly units negate enemy ZOCs) though normally passable terrain to any hex outside the city. Furthermore, if they are to use a ship for retreat, such ship must be within three hexes of the retreating unit and must not contain another combat unit.

[15.59] Ottoman units that gain entry to the city by Sea Assault count as only one point each for Victory purposes, regardless of their actual attack strength. Furthermore, such units must be able to trace a line of hexes as per Case 15.58 for them to be counted for victory (although they may be more than three hexes from the walls for this purpose). In addition, if at the end of the last Impulse victory has not been achieved, Ottoman units making sea assaults may be removed only if they satisfy Case 15.58; otherwise, they are eliminated.

[15.6] THE BOOM

A huge "boom," from Galata to the Acropolis, effectively hindered entrance into the Golden Horn and greatly aided any galleys defending behind it. Ottoman ships wishing to enter the Golden Horn must try to force the Boom (which is represented by the "wall" hexsides running from hex 3429 to hex 3334). The two smaller booms on the southern portion of Constantinople are permanent and unforceable. Only Byzantine ships may cross such hexsides.

[15.61] At the beginning of the game the Byzantine Player controls the Boom. To control the Boom a Player must be the last Player to occupy hexes 3430, 3429 and 3330. (Note that as the Byzantine Player already controls the Boom, he does not have to satisfy any of the requirements, unless the Ottoman Player gains control of the Boom.) Passage through the Boom - unless it is broken - is through hexes 3430 and 3429 only.

Only the Player who controls the Boom may make such passage.

[15.62] Ships may not Ram through a Boom hex side.

[15.63] Ships that are melee attacked through a Boom hexside add one to their defensive melee strength, but not to their offensive melee strength.

[15.64] The Boom may be broken or set on fire. To do this a Friendly ship must spend one full Movement Segment adjacent to a Boom hexside which, in turn, is not adjacent to any Enemy ship. At the end of the Movement Segment the Boom is considered destroyed and the entire Boom is no longer in existence.

[15.65] Ships adjacent to the Boom are not subject to drift rules. They may remain in such hex without moving.

[15.7] ARTILLERY BOMBARDMENT OF SHIPS

[15.71] Only the Ottoman Player may Bombard ships. Only ships in the Golden Horn may be Bombarded.

[15.72] For each Gun Strength Point that the Ottoman Player has in Pera, he may Bombard one Byzantine ship. He Bombards ships in his Bombardment Phase only. He may not Bombard ships in a Naval Phase or an Assault Phase. Guns used to Bombard ships may not be used to Bombard the Walls in the same turn that they Bombard the ships.

[15.73] To Bombard, the Ottoman Player rolls two dice. If he rolls a 2 or a 12, the target ship is sunk. If he rolls an 11, the target ship is Damaged.

[16.0] SAILORS

GENERAL RULE:

The Byzantine Player has the capability of stripping the crews from his galleys to add extra men to his land forces. In doing so he will correspondingly reduce the melee effectiveness of his galleys. To assign crews to "shore duty" simply start a Planning Phase/Byzantine Strategic Movement Segment with the chosen galley counter in any coastal hex on the Southern shore of the Golden Horn. During the Strategic Movement Segment, the galley is flipped over (to reveal its reduced strength) and a Sailor counter is placed in the same hex. The Sailor counter may not move in the Strategic Movement Segment that it disembarks but may move in any succeeding Movement Segment. To restore the sailors to the ship simply reverse the process. The two naval Leaders, Diedo and Trevisano, may be assigned to land duty, one for each two sailor combat units.

Players should note that the reverse side of the Byzantine ships are for stripping the crews only; they do not represent lost effectiveness due to combat, as in Cases 13.2 and 15.35. Byzantine Sailor units are treated exactly as normal Byzantine land combat units.

[17.0] THE GREAT PORTAGE

COMMENTARY:

When Mehmet found that he could not break through the Byzantine naval defences at the Boom (see Case 15.6) he realized that he had to find some way to contest the Byzantine control of the Golden Horn. Otherwise, he was virtually restricted to a land assault from one direction.

Therefore, on April 23, having failed twice at the Boom, he literally carried a portion of his fleet overland (from right behind Galata to approximately hex 3624)! By the next evening the Byzantine fleet no longer was in some command of the Golden Horn. The rules below attempt to recreate this highly unusual feat.

CASES:

[17.1] WHEN THE OTTOMANS MAY PORTAGE

The Ottoman Player may not attempt to Portage (transport over land) his ships until one of the following two requirements are met:

1. The Ottoman Player has spent at least two successive Naval Combat Segments assaulting the Boom in an effort to get through. On these two successive Segments the Ottoman Player must use at least three ship units to attack. However, the Ottoman Player may never attempt Portage before Game-Turn six; or
2. Game-Turn Twenty. The Ottoman Player may attempt to Portage automatically starting with Game-Turn Twenty, regardless of whether or not the first requirement has been met.

[17.2] HOW PORTAGE OCCURS

[17.21] Once the Ottoman Player has satisfied the requirements of Case 17.1, he may attempt to Portage certain of his ships. The Ottoman Player may Portage only triremes, biremes or fustae. He may not Portage any of his galleys. He may Portage as many triremes, biremes and/or fustae as he wishes.

[17.22] Starting with the Planning Phase after Case 17.1 has been satisfied, the Ottoman Player rolls a die. He adds to this die-roll the Assault Capability Number on the Turn Record Track for the Game-Turn he is rolling in (see Case 7.21). If the total (die-roll plus Capability Number) equals five or more then the Ottoman Player simply places the ships he wishes to move in any Pera coastal hex within five hexes of 3623 (Remember, Ottoman ships may not be placed in Galata coastal hexes).

[17.23] Ships to be Portaged must start the Planning Phase in any Pera coastal hex in the Bosphorus.

[17.24] Portaged ships may move the Game-Turn after they have been Portaged across Pera.

Players should ignore Section 13.0 as now printed in the rules book. Also, Section 14 (in rules) now becomes Section 18.0. Section 19.0 (formerly Section 15.0) now covers the scenarios, of which there are three: The Campaign Game, the Land Game, and the Assault Game.

[19.1] (change) This Case is now The Campaign Game. It takes about six or so hours to play.
Additions to Deployment:

1. All Byzantine Naval Units, except the Genoese 8-0-D Galley, are placed in any hex in the Golden Horn. The Genoese 8-0-D Galley arrives in any all-sea hex along the southern edge of the game-map on any turn the wind is favourable, starting with Game Turn Four. It may not arrive before then; it may delay its arrival awaiting a favourable wind, etc. It may arrive at any time during a Naval Phase.
2. All Ottoman naval units arrive Game-Turn One along the south edge of the game-map, in any all-sea hex, in oar mode.

[19.2] The Land Game (addition) Byzantine Sailors may enter the game one unit per Game Turn, beginning with Game-Turn Twelve. Sailor units enter in the Byzantine Strategic Movement Segment. The Leaders Diedo and Trevisano may enter the game with any of these units (Byzantine Player's choice). Sailors entering the game are placed in any land hex within two hexes of the Golden Horn and east (i.e., behind) of the Inner Walls.

Note that Sailor units are treated exactly as units in reserve (see Case 15.13). Remember, the Land Game is now the original 15.1.

[19.3] (addition) This case is now the Assault Game. This corresponds to 15.2 in the original rules. There are no naval units in the Assault Game.