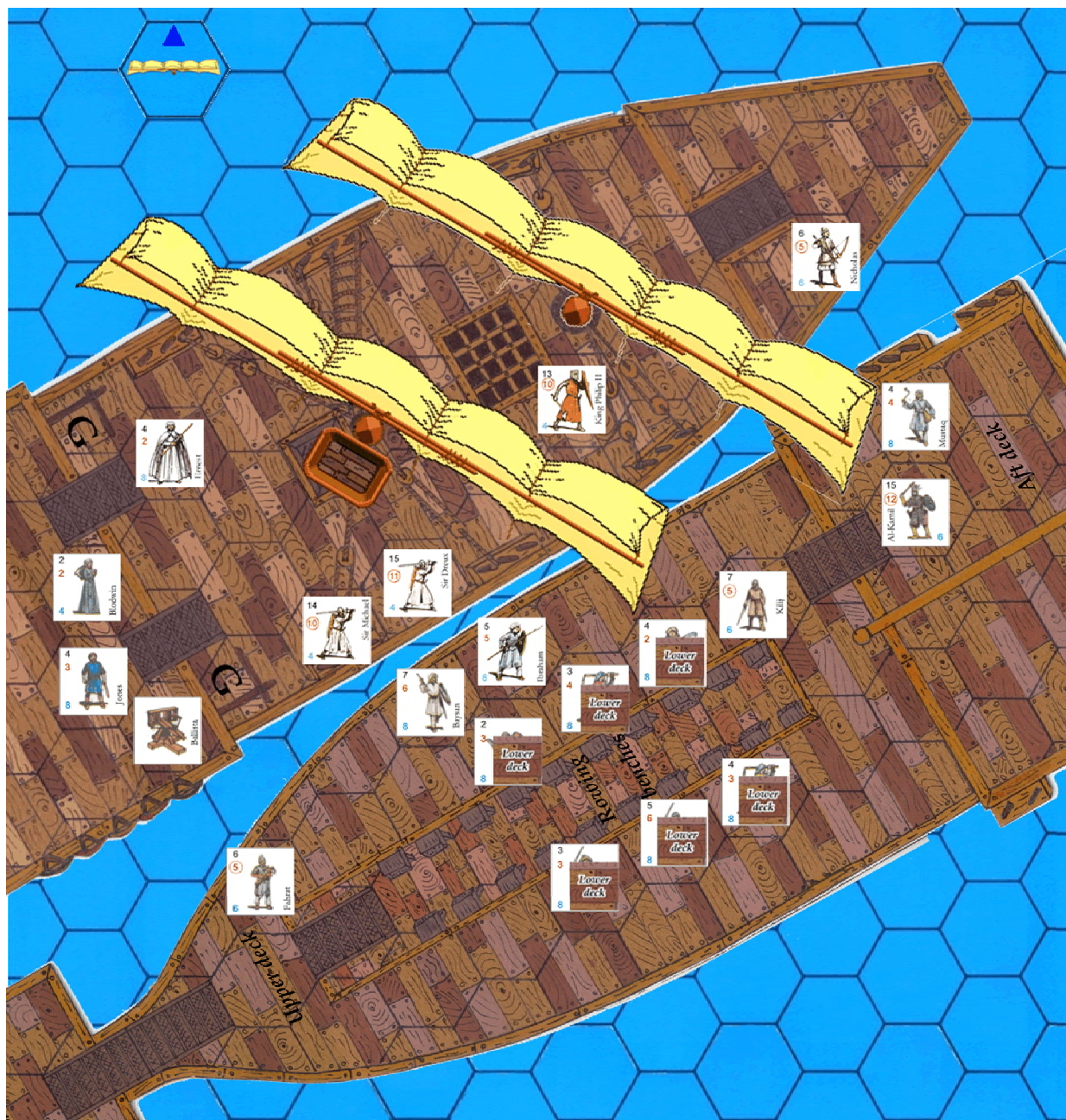


Nefs & Galleys

Extension for CRY HAVOC, SIEGE, OUTREMER/CROISADES and VIKINGS

The rules below allow the rules of VIKINGS to be adapted for naval combat in the Middle Ages, whether that be in the Mediterranean Sea or in other Northern Seas. Only alterations to the standard rules are given below; if nothing is mentioned then the rules for VIKINGS will apply.



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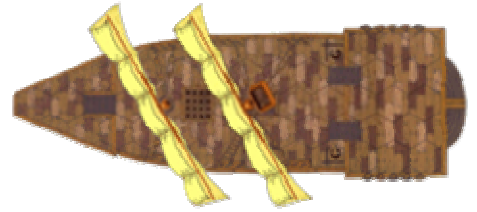
1 Ship Descriptions

Six new ship types are used in NEFS & GALLEYS:

1.1 The nef (*La nef*)

This large ship, also called a “round ship”, was mainly used for open-sea navigation. Crusaders of the XIIth century used this type of vessel for their overseas pilgrimages. It was also used by Genoese and Pisan merchants to open profitable trade routes.

The nef depicted in NEFS & GALLEYS boasts both fore and after castles, as well as 2 masts including one with a crow's nest. Sails are 7 hexes wide. The hexes of the upper deck are higher above the waterline than those of ships that are only 3 hexes in width.

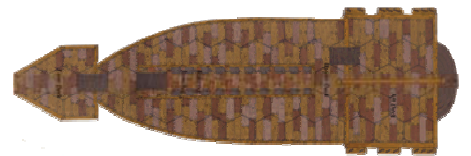


1.2 The galley (*La galée*)

The Byzantine, Saracen and Christian war fleets consisted of galleys, which were the best warships of the Middle Ages. The large galley has two decks: the lower deck with the rowing benches and the upper deck for the warriors and the steersman. The ship was rowed by galley-slaves or prisoners of war, except on Byzantines galleys where the oarsmen were paid.

The galley is a fast ship but it is difficult to manoeuvre, and in practice it cannot move backwards. War engines such as ballistas and catapults were often installed on the upper deck. The Byzantine galleys were additionally equipped with a tube at the bow on the foredeck that was used to throw the terrible Greek Fire.

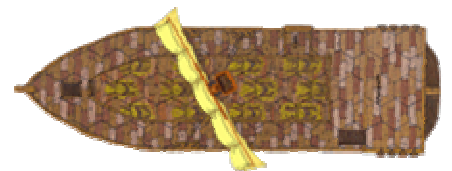
The galley depicted in NEFS & GALLEYS is equipped with fore and aft decks, as well as a lower deck containing rowing benches. The hexes of the upper deck are higher above the waterline than those of ships that are only 3 hexes in width.



1.3 The horse carrier (*L'huissier*)

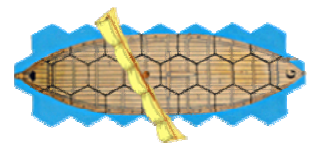
Called 'Huissier' in French (from an old word meaning « gate »), this type of ship was specially designed to enable horses to board. It is equipped with a side gate to access the lower deck directly. This entrance had to be sealed while sailing, as it lies partially under water. Horses are held in place by a belt passing under their belly.

The horse transport depicted in NEFS & GALLEYS can accommodate 12 horses and has two decks plus an aftercastle. The mast carries a 7-hex wide sail with a crow's nest on top.



1.4 The felucca (*La felouque*)

This vessel is used both by Arab merchantmen and by Saracen pirates. Moving only under sail, its triangular lateen sail allows it to capture the wind and to manoeuvre easily. The single-deck felucca is represented by a Viking drakkar with a 5-hex wide sail.



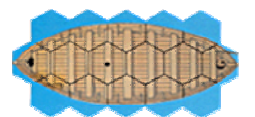
1.5 The cog (*La cogue*)

A general-purpose ship, used primarily for coastal trade but also for open-sea navigation, the cog is mainly used to carry supplies and construction materials. Its rectangular sail with a complex system of control makes the boat very slow and difficult to manoeuvre. The single-deck cog is represented by a Saxon galley with a 5-hex wide sail.



1.6 The longboat (*La chaloupe*)

This boat is used to embark and disembark passengers from galleys and nefes when they are not moored in port. It is operated by oars alone and has no rudder. Like the rowboat, it is easy to capsize. The longboat is represented by a Saxon galley.



2 Crew Tasks

The high morale which was enjoyed by the Vikings, and which gave them their strength, had been long lost by the 11th and 12th centuries. The medieval ships are treated as being crewed by four types of characters with well-defined roles:

2.1 Galley Slaves and Oarsmen

The only characters considered to be galley-slaves are those designated as such at the beginning of the scenario and enemy characters taken prisoner during an earlier fight. They only perform one task: rowing, under the orders of a slave-master, soldier or noble. The galley-slaves will stop rowing either if there is no guard on the ship's lower deck or if the guard is engaged in combat. As they are chained to their benches they cannot attack and their defence strength is reduced to 1. They cannot bail.

Exception: Byzantine galleys are crewed by paid oarsmen who are consequently better motivated.

2.2 Sailors

The sailors can be used to row (in a longboat), steer (on a galley), or manage the sails (on nef, felucca, horse carrier or cog). They can also bail and can also be used to operate the war engines and to throw grappling-hooks. They can be used as oarsmen on a galley if, for any reason, an oarsman's space is empty. They cannot take part in boarding actions but will defend themselves if attacked.

2.3 Soldiers

The soldiers are primarily assigned to the tasks of boarding, grappling and operating the war engines. They can bail. They can manage a sail but only if they are supervised by a sailor. They can row (but only in a longboat) if a space is empty and there are no more sailors on the boat.

2.4 Nobles

The noble knights, mamluks and klibanophoroi can only take part in boarding actions or command the operation of a war engine in place of an engineer. They can never lower themselves to take the place of a sailor or oarsman.

The allocations of the different tasks are summarised in the table below (with the empty spaces indicating actions that are prohibited):

TABLE OF CREW TASKS

Task	Galley slave	Byzantine oarsman	Sailor	Soldier	Noble
Row	X	X	X	(X)	
Steer			X		
Manage a sail			X	(X)	
Operate a war engine			X	X	
Bail		X	X	X	
Throw a grappling hook		X	X	X	
Ready to board				X	X

3 Ship Movement

3.1 Initiative

The ship with the highest effective speed moves first. In the event of equal speed, ships move in the following priority order: galleys, feluccas, nef, horse carriers, cogs, longboats and rowboats.

3.2 Sailing ships

3.2.1 Sailing ship characteristics

TABLE OF SAILING SHIP CHARACTERISTICS

	Cog	Felucca	Horse Carrier	Nef 2 sails (1 sail)
Number of sailors to manage the sail	4	4	6	6 per sail
Number of Sail Points	6	8	6	8 per sail
Maximum speed / Acceleration				
Wind ahead (In irons)	0 / -1	0 / -1	0 / -2	0 / -1 (0 / -1)
Wind on the bow (Close hauled)	2 / +1	4 / +2	2 / +1	3 / +1 (2 / +1)
Wind astern (Running before the wind)	5 / +1	6 / +2	5 / +1	6 / +2 (4 / +1)
Wind on the quarter (Broad reach)	6 / +2	8 / +3	6 / +2	8 / +2 (5 / +1)
Deceleration - conditions needed				
Wind ahead	Reduction to 0	Reduction to 0	Reduction to 0	Reduction to 0
Wind on the bow	-3 max per phase	-3 max per phase	-3 max per phase	-3 max per phase
Wind astern	-1 max per phase	-1 max per phase	-1 max per phase	-1 max per phase
Wind on the quarter	-2 max per phase	-2 max per phase	-2 max per phase	-2 max per phase
Number of points of hull damage before a ship sinks				
	13	19	25	30
Effect of damage on speed & acceleration				
Speed	- 1 per 3 points of hull damage		- 1 per 6 points of hull damage	
Acceleration	- 1 per 6 points of hull damage		- 1 per 8 points of hull damage	

3.2.2 Number of sailors

In addition to the steersman, there must be 4 sailors to manage each sail during manoeuvres (6 for large ships). If there are only 2 or 3 sailors per sail (or 4 or 5 on a large ship), the speed of the ship is reduced by 1 extra point for each manoeuvre (except when turning from wind astern to wind on the quarter or vice versa, which only concerns the steersman). If there is only 1 sailor for the sail (or 1 to 3 sailors on a large ship), or if there are no sailors at all, the ship remains on the last heading that it was facing. If the ship is moving forward with the wind astern or on the quarter, it can change heading so long as there is still a steersman.

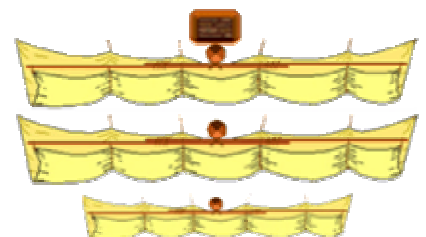
Soldiers can be requisitioned to replace sailors. Due to their inexperience in navigation, at least one sailor must be present to direct them in handling the sails. If 3 soldiers help 1 sailor (or 5 soldiers help 1 sailor on a large ship), the ship can change to a new direction at a cost of 1 extra point for each manoeuvre.

3.3 Using the sail

The 4 types of sailing ship used in NEFS AND GALLEYS (nef, horse carrier, felucca and cog) can only move as determined by the strength and direction of the wind.

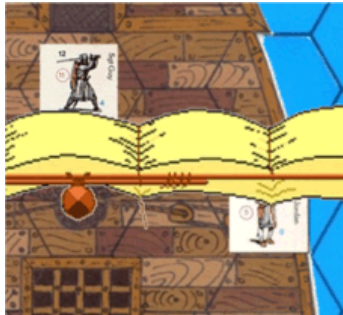
3.3.1 The position of the sail

The sail is represented by three different types of marker: one that is 5 hexes in width, one that is 7 hexes in width and another that is 7 hexes in width but has a crow's nest. The mast is placed on the hex containing a black circle. The sail will always be placed at right angles to the wind direction. Its position in relation to the ship may thus change whenever there is a change of heading.



The bottom of the sail is approximately 1.5 metres above the deck. A sail hex does not block movement by characters, but the sail does obstruct movement a little by forcing them to duck under it. Due to graphical limitations movement is obstructed only in those hexes containing the yard arm, not in those hexes that merely contain a part of the sail. Characters must always be placed beneath the sail marker.

Any sail hexes that extend outside of the ship are well above the water and do not obstruct the movement either of the sailing ship itself or of other ships trying to board it.



Example:

In the event of combat, Jordan the crossbowman will be hindered by the sail but Sergeant Guy will not be affected because the yard arm passes through the hex aft of him.

3.3.1 The crow's nest

The Nef and the Horse Carrier both have a crow's nest. On the Nef, it is the rearmost mast that has the crow's nest. A character in the crow's nest will always be placed in the hex containing the mast, whatever is the actual position of the crow's nest when the ship turns (since for visibility of the graphics the crow's nest is shown fixed to the sail although in reality it was fixed to the mast and would not turn as the sail turns). A character in the crow's nest is always placed on top of the sail marker.



Example :

Jordan is now in the crow's nest while Sergeant Guy is on the deck.

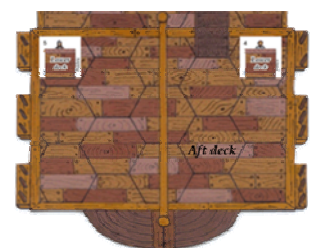
Characters can climb from the upper deck to the top of the ladder-like rigging on the nef (4 MPs) or if unarmoured can climb to the top of any of the ropes (8 MPs). From that position they can enter the crow's nest at a further cost of 2 MPs. Climbing down to the deck is quicker, costing a total of only 4 MPs whether from the crow's nest (by any route) or from the top of the ropes or rigging. Nobles (with MA of 4) cannot climb the rigging because of their heavy armour. A character in the crow's nest has a combat advantage (+) against any enemy on the rigging (-) or ropes (- -). A character on the rigging or ropes can spend one full turn to pull a dead body out of the crow's nest so long as he is not engaged in any other action.

3.3.2 Steersman Stand

The « G » locations for steersman have been forgotten on the galley and the horse carrier. The pictures below show where to place the steersmen. Put a « Lower Deck » marker on them to show that they are located on the upper deck and not the Aftcastle.



Horse Carrier



Galley

3.4 Movement under sail

3.4.1 The wind and the facing of the ship



Each ship has 4 possible headings in which it can face as a consequence of its orientation in relation to the wind: wind ahead, bow, quarter and wind astern. The facing will depend on the seagoing characteristics of each ship.

The wind marker shows the direction of the wind. The wind does not vary within each scenario, neither in strength nor in direction. The wind direction will be identified at the beginning of each scenario.

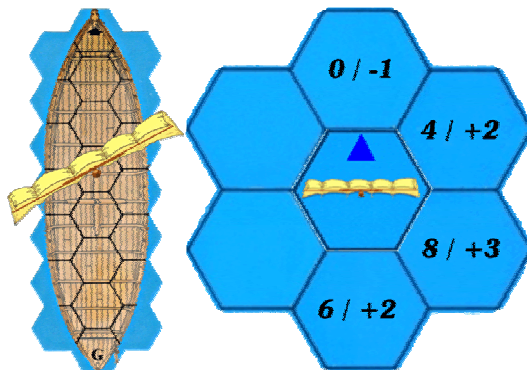


3.4.2 The speed of the ship

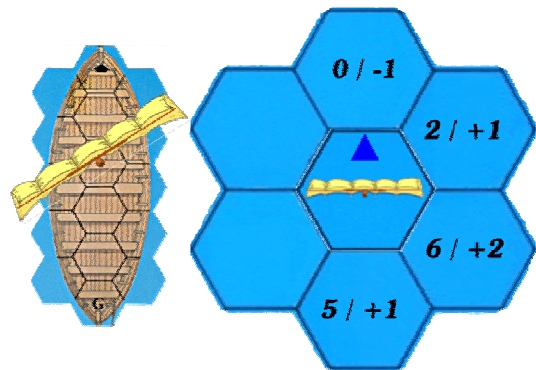
Each ship has a maximum speed (the first number) and an acceleration allowance (the second number) which are determined by its facing.

Note: In the examples below, the wind marker indicates the orientation of the ship.

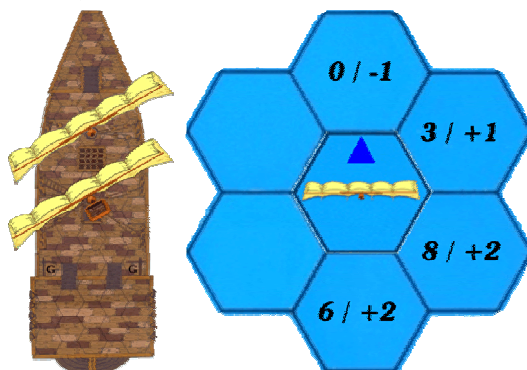
The felucca



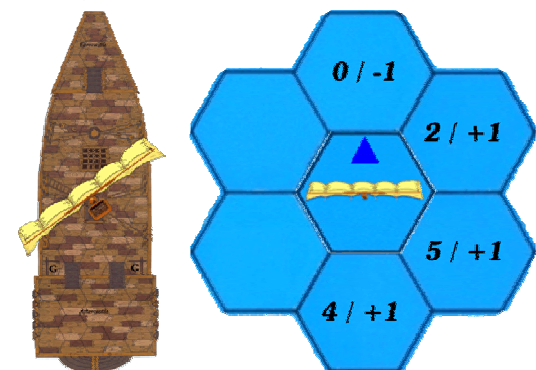
The cog



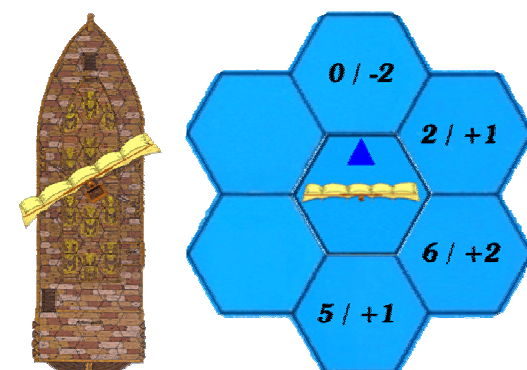
The nef (2 sails)



The nef (1 sail)



The horse carrier



3.4.3 Speed during the movement phase

> The Phase Speed (PS) is the speed at the end of the previous phase plus or minus changes in speed made at the start of the present phase.

> The speed at the end of the present phase is the PS less any reduction in speed due to manoeuvres.

Of course the speed at the end of the phase cannot be more than the maximum speed of the ship.

3.4.4 Number of changes of direction

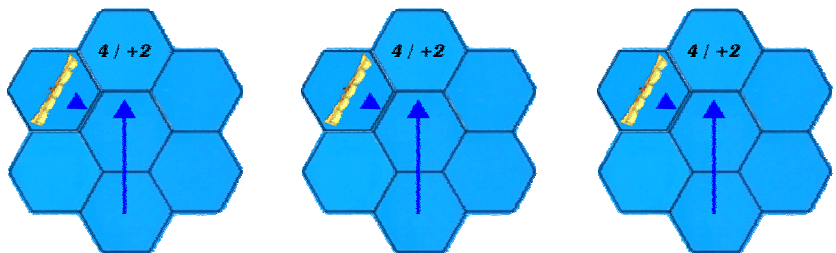
Ships can only make one change of direction each phase. Each turning into a different facing costs 1 movement point and reduces the speed of the ship by one point during this phase.

3.4.5 How does this work?

The examples below show ships moving in three successive phases. The arrows show the ship's facing at the *end* of each phase.

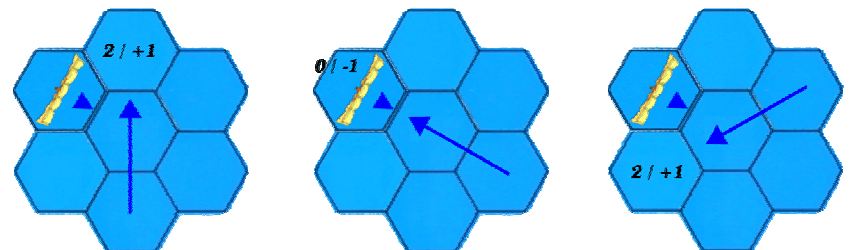
Example 1: The felucca

**Direction of ship is shown
at end of the phase**



Speed at end of previous phase	1	3	4
Acceleration	+2	+1 (as it cannot exceed the maximum speed)	0
Speed in the current phase	3	4	4
Speed at the end of the phase	3	4	4
Maximum speed	4	4	4

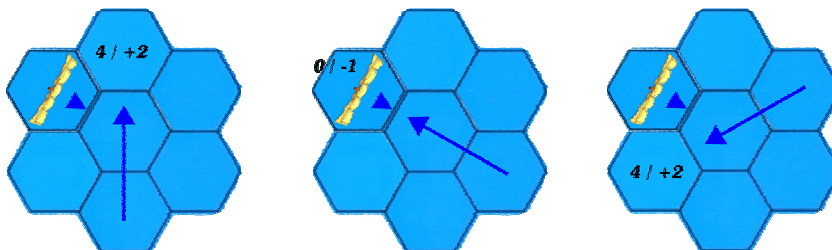
Example 2: The cog – Tacking



Speed at end of previous phase	1	2	1
Acceleration	+1	0	-1
Speed in the current phase	2	2	1 – 1 = 0
Speed at the end of the phase	2	1 (-1 for turning)	-1 (-1 for turning)
Maximum speed	1	2	1

Note that the cog will need to move backwards in the next movement phase but can still change facing (at a cost of yet another movement point). So one possibility is to accelerate +2 to a speed of 1 so as to move 1 hex forwards, and an alternative is to accelerate +2 but continue turning in which case the ship reduces to a speed of 0.

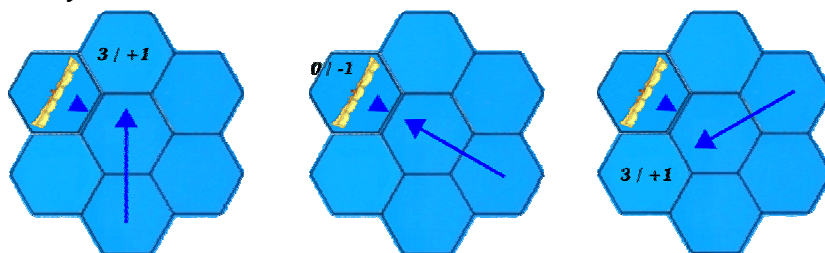
Example 3:
The felucca –
tacking



Speed at end of previous phase	1	3	3
Acceleration	+2	+1	-1
Speed in the current phase	3	4	$3 - 1 = 2$
Speed at the end of the phase	3	3 (-1 for turning)	1 (-1 for turning)
Maximum speed	1	3	3

Note: When the ship starts its turn with the wind ahead, its first move must be a change of direction to port or starboard. It cannot move forward directly into the wind!

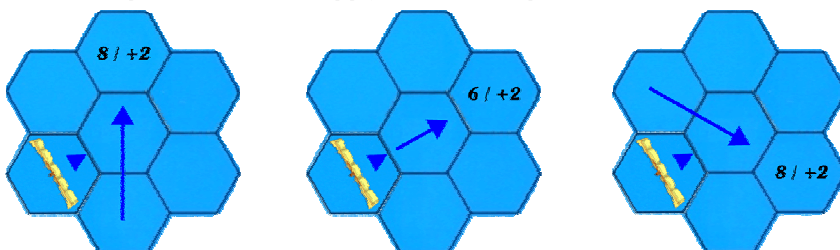
Example 4:
The nef (2 sails) –
tacking



Speed at end of previous phase	1	2	1
Acceleration	+1	0	-1
Speed in the current phase	2	2	$1 - 1 = 0$
Speed at the end of the phase	2	1 (-1 for turning)	-1 (-1 for turning)
Maximum speed	1	2	1

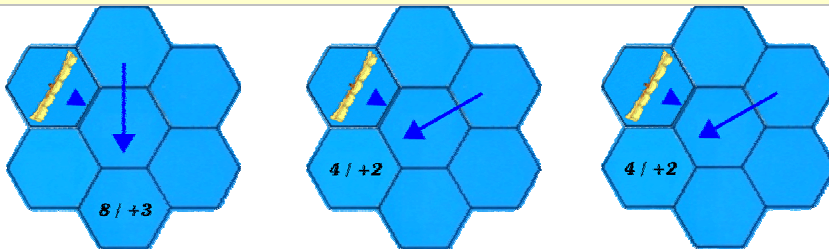
Note: Even with a speed of zero, it is always possible to change direction whatever the ship's facing. The notes on the next movement phase for Example 2 above also apply to this example.

Example 5:
The nef (2 sails) –
turning with the wind



Speed at end of previous phase	4	6	5
Acceleration	+2	0	+1
Speed in the current phase	6	6	6
Speed at the end of the phase	6	5 (-1 for turning)	5 (-1 for turning)
Maximum speed	4	6	5

Example 6:
The felucca –
beating into the wind



Speed at end of previous phase	8	8	4
Acceleration	0	0	0
Speed in the current phase	8	8	4
Speed at the end of the phase	8	4 (maximum speed in this new facing)	4
Maximum speed	8	8	4

Note: The felucca can run 3 hexes on a broad reach (with the wind on the quarter), turn to starboard (losing 1 Movement Point) and then move forward 4 more hexes close hauled (with the wind on the bow). Irrespective of when it makes the change of direction, the number of hexes that it can sail close hauled cannot exceed 4 since that is the maximum speed for this ship with that facing.

3.4.6 Deceleration:

A sailing ship cannot really decelerate, but it can reduce its speed by facing into the wind, by trimming the sails by a small amount if that will do what is necessary, or by furling the sails.

- > Wind astern: deceleration maximum of -1 per phase.
- > Wind on the quarter: deceleration maximum of -2 per phase
- > Wind on the bow: deceleration maximum of -3 per phase
- > Wind ahead: possibility of reducing speed to zero

3.4.7 Damage to the sails

Damage can be caused to the sails by projectiles hurled by war engines, and by flaming arrows. The Ship Characteristics Table shows the maximum speeds that can be achieved by sailing ships with undamaged sails (which will be either 6 or 8 Sail Points depending on the ship). A damaged sail reduces the maximum speed of a ship by the number of Sail Points lost during the different phases. Lost points cannot be repaired during a scenario. When all of a ship's Sail Points have been lost, the ship cannot move. The nef can operate with only one sail, but its sailing is less efficient.

Note: These Sail Points are distinct from the 5 or 7 hexes representing the ship's sail. The sail marker is not removed unless all the Sail Points have been lost.

Type of damage	Sail Points lost
Large stone	1 point
Greek fire	1 point every 3 phases for each hex affected.
Flaming arrow	1 point every 3 phases if the fire is not extinguished

3.5 Oared Ships

3.5.1 Oared ship characteristics

TABLE OF OARED SHIP CHARACTERISTICS

	Galley	Longboat
Maximum number of oarsmen	20	6
Maximum speed forwards	8	3
Maximum speed backwards	2	3
Actual speed	Equal to number of pairs of oarsmen *	Equal to number of pairs of oarsmen
Acceleration and deceleration - conditions needed		
+1**	At least 1 pair of oarsmen	At least 1 pair of oarsmen
+2 or -2	At least 3 pairs of oarsmen	At least 3 pairs of oarsmen
+3 or -3	At least 6 pairs of oarsmen	-
Effect of different types of movement on ship speed		
Straight line	None	None
Sideways movement	Speed -1	None
Turning	Speed -2	Speed -1
Restrictions:	Max 60°, 1 per phase	Max 60°, 2 per phase
Number of points of hull damage before a ship sinks		
	25	3
Effect of damage on speed and acceleration		
Speed	-1 per 3 points of hull damage	
Acceleration	-1 per 6 points of hull damage	

* Like a drakkar, a galley can achieve a maximum speed of 8 if there are 10 pairs of oarsmen on board.

** A ship with no-one rowing will lose speed at 1 Movement Point per phase.

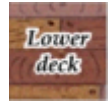
3.5.2 Galley Slaves

A non-Byzantine galley can only move if a guard is present on the lower deck and that guard is not engaged in combat. As soon as that condition ceases to be met, the galley-slaves will stop rowing.

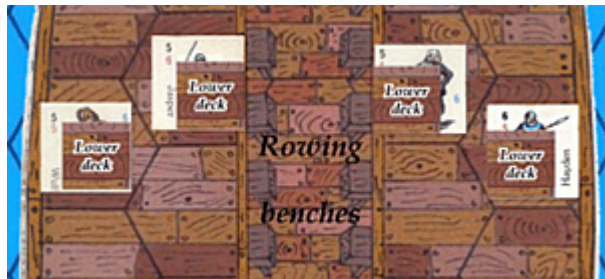
3.5.3 Number of oarsmen

The galley is equipped with 10 rowing benches, 5 on each side, with each bench being able to hold 2 oarsmen. The maximum number of oarsmen is thus 20 oarsmen. The principle of pairs of oarsmen used in VIKINGS is applied to rowing benches: a pair of rowing benches consists of 4 oarsmen split across two benches, with one bench on each side of the ship (however, it is not necessary that they be opposite one another). The consequence of this is that each oar is rowed by a bench of 2 oarsmen. If one of the 2 oarsmen is not at his post on the bench, the oar cannot be used.

The oarsmen are located on the lower deck. To avoid confusing them with characters located on the upper deck, a “Lower Deck” marker should be placed on top of their character counters. As in the drakkar, they will be identified by their positions, facing towards the front of the ship.



Since the lower deck rowing bench hexes are hidden below the upper deck, a brief further explanation will identify which specific hexes must be used for the oarsmen. Five of the hexes in the lower deck gangway show two bench ends: the outer oarsman sits beside the hull parallel to one of these gangway hexes and the inner oarsman sits in the inside hex between these and to the rear. The example below shows two fully-manned benches that each contain two oarsmen. Note that although the example shows two manned rowing benches opposite one another, the galley would be rowed just as efficiently if the two oarsmen on the starboard side (the left of the picture) were instead sitting on the bench in front.



Example : Wulf and Jasper occupy the same rowing bench and so they operate the same oar. The same is true on the other side of the ship for Hayden and Gobin. The 4 characters form a pair of rowing benches.

4 Landing

4.1 Running aground

4.1.1 Galley, nef and horse carrier.

These large ships cannot approach the shore closer than 12 hexes without risking running aground. A large ship with a speed equal to or less than 3, will stop automatically as soon as it reaches the first hex that is 12 hexes from the shore. It is treated as run aground without damage and cannot move until the end of the present scenario. A large ship with a speed greater than 3 does not stop until the next hex (i.e. 11 hexes from the shore) and its hull is torn open on the rocks. The situation is treated like a frontal collision with a ship travelling at the same speed (see the section on collisions).

4.1.2 Felucca and cog

These small ships cannot move into shallow water hexes without risking running aground. A sailing ship with a speed equal to or less than 3 will stop automatically on the first hex that is 2 hexes from the shore. It is treated as run aground without damage. It can be pushed back into deep water using the rules in VIKINGS. A sailing ship with a speed greater than 3 does not stop until the next hex (i.e. one hex from the shore). The ship is treated as firmly aground in the sand and it cannot be moved until the end of the scenario.

4.1.3 Longboat

This follows exactly the rules for “Vikings”.

4.2 Refloating

This rule does not apply to the large ships, which cannot run aground on the beach. 2 characters are needed to push a longboat into the water, and 4 for a felucca or cog.

4.3 Docking in a harbour

4.3.1 The docking manoeuvre

It is not possible for sailing ships to dock with all their sails up. The number of sailors needed to take down the sails is the same for each type of sailing ship as that shown as needed for managing the sails in Rule 3.2.2. This manoeuvre takes a full turn, during which the sailors cannot do anything else.

For oared ships, the oars must be shipped before they can dock.

Once the sail has been taken down (or the oars shipped), the ship decelerates at -3 points per phase.

The speed of the ship cannot be greater than 1 when it docks with the quay, otherwise it will risk damaging the hull.

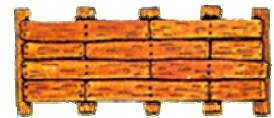
4.3.2 The ship at the quay

A ship is treated as being docked at the quay when:

- Its sail(s) have been taken down: the Sail marker(s) are removed to show that they do not allow the possibility of movement. It is, however, still possible to climb up into the crow's nest while the ship is docked at the quay.
- The ship is moored to the quay: place a rope marker on the edge of the quay to indicate this situation. The process of mooring requires two characters, a sailor on board and another person on the quay. This action takes one full turn during which neither of them can undertake any other task.

4.3.3 The gangplank

Landing stages in a harbour are treated as being at level -0.5, the same as the water level in the harbour, while the quays are at level 0 (see Rule 6.1). A gangplank covering 2 hexes must be set in place in order for characters to move from a Quay hex to a hex on the upper deck of a large ship. A gangplank is stored along the upper deck bulwarks of each large ship and it takes 2 characters one full move to set it in position once the ship has been moored. Due to the slope, a character on the gangplank hex nearest to the quay will be in a position of disadvantage compared to an attacker on the other gangplank hex. If the enemy is on the quay or in the ship, the character on the gangplank will also be in a position of disadvantage.



5 Collisions

5.1 Impacts and rigging:

When two ships collide, roll 1D10 and on 1-6 the rigging of the two ships will become entangled. In order to disentangle the ships a roll of 1-4 must be rolled on 1D10 at the beginning of a phase.

5.2 Drifting of ships attached to one another

When two ships are bound together (by tangled rigging or by grappling hooks), they will immediately have a speed of zero. The two ships will then drift one hex per phase in the direction of the wind.

5.3 Effect of damage

5.3.1 Nef, galley & horse carrier

Crew: Characters located on either deck, on the hexes hit and on hexes that strike the other ship, can be stunned, wounded or killed. The damage affecting members of the crew will apply to each deck, which may double the losses. If the hull hex on which he is located receives one point of damage, a galley slave (since he is chained to his bench) will also have to pass a drowning test at the beginning of each turn.

Hull: A waterline hole is made in the lower deck. For the galley, an oar cannot be rowed from a hex that has lost 1 point of damage (or more).

5.3.2 Felucca & cog

The same rules apply as for a Viking drakkar or Saxon galley.

5.3.3 Longboat

If a large ship hits a longboat or rowboat with an effective speed of 3 or more, this will automatically sink it and the characters aboard will fall into the water. The large ship does not suffer any damage but its speed is reduced by 1 point. If a longboat hits a large ship, the collision has no effect.

5.4 Another type of collision: The Diekplus

This naval tactic was known under this name by the ancient Greeks and it is apparent that it was also used during galley combat in the Middle Ages. When 2 galleys strike one another, the attacker can try this manoeuvre to break the oars of its opponent.

To succeed in this type of attack:

- The attacking ship must first ship oars to avoid damaging them. This action must take place before the collision and costs 1 Movement Point. After this moment, the speed of the ship will automatically drop by one point per phase until the oars have been put back into the water.
- The attacked ship also has the possibility of shipping oars before being struck, but only if it succeeds in the following initiative test: The morale level of the highest ranking character on board the ship and not adjacent to an enemy is noted (e.g. 8 for a kataphraktos). If the result on 2D10 is equal to or less than this morale level, the test is passed and the oars can be shipped. All the restrictions noted in the paragraph above will apply. If the result is higher, the ship has not seen the danger or has not had time to achieve this manoeuvre.
- If the 2 ships have their oars shipped, the attack ends with the simple collision of one ship with another.
- If the attacked ship has not been able to ship its oars in time, the attack breaks the number of oars shown on 1D6.

6 Influence of the tasks on the course of the game

6.1 Comparison of elevation levels

To keep some consistency with the elevation levels of the various fortresses in the game, half-levels are being introduced to prevent a crow's nest being as high as the keep of the Templars' Castle. This is an important point should you play a scenario in the Fortified Harbour, where ships are within range of missile fire from the walls or towers.

	<i>Nef</i>	<i>Galley</i>	<i>Horse carrier</i>	<i>Felucca</i>	<i>Cog</i>	<i>Longboat</i>
Level 0						Deck
Level 0.5		Lower deck	Lower deck	Main deck	Main deck	
Level 1	Upper deck	Upper deck	Upper deck			
Level 1.5	Fore/After castle	Fore/After castle	After castle			
Level 2	Crow's nest		Crow's nest			

In relation to the rules for VIKINGS, the new tasks of 'manage the sail' and 'operate a war engine', take place at the same time as the rowing task. The particular situation of large ships with their two or three superimposed decks requires special treatment, but the longboat, felucca and cog are treated just like any other vessel with a single deck.

6.1.1 Missile fire

Only characters ready to board and on one of the upper decks can shoot. The steersman benefits from medium cover; the others only benefit from light cover as they are more exposed.

All characters on the lower deck benefit from infinite cover, so no-one can fire on them from the outside and they cannot fire at targets outside.

A character on the stairway between the upper and lower decks benefits from medium cover irrespective of from where he is shot at (i.e. from another ship, or from the same ship whether from the lower deck or upper deck). A missile-man on that stairway may fire at a target on either of the two decks but with a die-roll modifier of +1 (which is additional to the normal +1 for shooting from a moving ship).

The remaining possibilities when shooting are summarised in the table below. The operators of war engines, including the supervising engineer or noble, are treated like the steersman in relation to cover (i.e. medium cover) irrespective of whether the shot crosses the war engine hex.

Modification to die-roll for shooting from large ships

Location of shooter	Location of target	Task of target	Cover
Lower deck	Lower deck	-	0
	On the stairs	-	Medium
	Other	-	Impossible
Upper deck	Upper deck of another large ship	Ready to board	Light
		Steering	Medium
	In the crow's nest	-	Medium
	On the lower stairs	-	Medium
	On another type of ship	Ready to board	0
		Rowing / Steering	Light
On the lower stairway	On one of the two decks	-	0
	On another ship	-	Impossible
Forecastle / Aftercastle	Castle of another large ship	Ready to board	Light
		Steering	Medium
	Upper or lower deck	Ready to board	0
		Rowing / Steering	Light
In the crow's nest	On the stairs / In the crow's nest	-	Medium
	On any deck	Ready to board	0
		Rowing / Steering	Light
	In the crow's nest of another ship	-	Medium
	On the lower stairs	-	Medium
On another ship or on land	Main or Upper deck or Castle	Ready to board	Light
		Steering	Medium
	On the lower stairs / In the crow's nest	-	Medium
	On the lower deck of the large ship	-	Impossible

If a shot crosses a sail hex, add +1 to the die roll.

6.1.2 Combats

Due to the higher elevation of the upper deck of a large ship (nef, galley or horse carrier), all characters ready to board a lesser type of ship (except a rowboat) will benefit from a doubly advantageous position (+ +) both in attack and defence. They are treated as being in an advantageous position (+) when boarding another large ship.

Characters steering or operating a war engine are (0) in defence and (+) in attack.

A character on stairs or a ladder is in a disadvantageous position: (-) in both attack and defence.

7 Movement & Combat On The Ships

7.1 Embarkation & disembarkation

7.1.1 Felucca, cog & longboat

Use the embarkation and disembarkation table in VIKINGS with the change that it now costs +1 to move to or from a longboat or rowboat.

7.1.2 Nef, galley & horse carrier

Taking account of the differences in level of decks, the table is modified as follows:

MOVEMENT COSTS TO AND FROM LARGE SHIPS

Entering a large ship		Leaving a large ship	
From an adjacent ship at same deck level	+ 1	Onto another ship at same deck level	+ 1
From another ship at one level different	+ 2	Into another ship at one level different	+ 2
From another ship at two levels different	+ 3	Into another ship at two levels different	+ 3
From a boat at three levels different	+ 4	Into a boat at three levels different	+ 4
From a deep water hex to upper deck only	+ 6		

It is not possible to climb into a large ship from land or shallow water since it cannot approach closer than 12 hexes from the coast. At this distance, although the depth of water is insufficient for the ship, it will still be treated in relation to the characters as if it were deep water.

Loading a horse on board: This action is only possible for horse carriers, cogs and feluccas. Horses cannot be transported in galleys. The longboat is too lightly built to sustain the weight of a horse.

7.2 Combats

Ship to ship: In the event of combat between a large ship and another type of ship (except a rowboat), a character on a large ship is always considered to be in favourable terrain (+) in both attack and defence. The advantage due to the large ship is neutralised if an enemy is also on the same level of deck. In the event of an attack into a large ship from a rowboat or longboat, the attacker is also considered to be in unfavourable terrain (-). A combatant in a sail hex is considered to be in unfavourable terrain for both attack and defence.

Ship to sea: A character in the sea cannot fight a character on the upper deck of a large ship.

7.3 Movement costs and combat effects

SHIP TERRAIN SUMMARY CHART

Hex type	Movement cost	Cover	Combat
Open deck	1 MP	None / Light *	0 / +
Hatch cover (on nef)	2 MPs	None / Light *	-
Sail	2 MPs	None / Light * / +1	-
Mast	2 MPs (due to sail)	Medium	-
Open stairs (to castles)	2 MPs	None / Medium **	-
Covered stairway (to lower deck)	2 MPs	Medium	-
Rowing benches (on galley)	2 MPs	None	-
Rigging (to crow's nest)	4 MPs	None	-
Rope (to crow's nest)	8 MPs up / 4 MPs down	None	- -
Crow's nest	2 MPs	Medium	+
War engine (<i>operators</i>)	Impossible	Medium	0 att, + def
Tiller / 'G' (<i>steersman</i>)	1 MP	Medium	0 att, + def
Gangplank	2 MPs	None	-

* Shooting into any deck or open stair hex across the bulwarks at the side of the ship will be against light cover; if this shot also travels *through* a sail hex then the target will benefit from medium cover due to the +1 from the sail.

** Characters on open stairs benefit from medium cover when shot at over the edge of the higher deck.

8 War Engines

8.1 Description of the war engines

War engines can only be used on galleys. Each war engine requires a crew of 1 to operate it (3 for the catapult) and 1 engineer or noble to direct the shooting. There are 3 types of war engine that can be used:

- Ballista: Its main role is to hurl flaming arrows at long distance to set fire to enemy ships. It may also hurl normal ballista arrows using the ranges below and the SIEGE Missile Results Table. Ballistas are represented by Ballista counters from SIEGE.
- Catapult: This is used to hurl large stones so as to damage enemy vessels. The types mounted on galleys are smaller and less powerful than those used during a siege. Catapults are represented by the 2-hex Mangonel counters from SIEGE.
- Siphon: This tube, located in the bow of Byzantine galleys, allows the dangerous Greek Fire to be projected onto enemy ships or onto the sea to protect the galley itself. The mixture of naphtha is set on fire by flaming arrows. It has the peculiarity of burning on water and cannot be extinguished other than with sand or vinegar. Siphons are represented by new counters.

WAR ENGINE CHARACTERISTICS TABLE

	Ballista	Catapult	Siphon
Number of operators	2 (inc. 1 engineer)	4 (inc. 1 engineer)	2 (inc. 1 engineer)
Range			
Short	1-30 hexes	1-25 hexes	5-10 hexes
Medium (+1 on die)	31-60 hexes	26-50 hexes	-
Long (+2 on die)	61-90 hexes	51-75 hexes	-
Frequency of fire (loading time)	Every 3 phases	Every 5 phases	Every 5 phases
Type of projectile	Arrow	Large Stone, Greek Fire	Greek Fire
Movement of the engine	Impossible	Impossible	Impossible

8.2 Damage caused by the projectiles

8.2.1 Determining the target and accuracy

The war engines are fixed in position, so the target must be situated in line with the engine; for the ballista and catapult this line must be determined at the start of the scenario. The siphon can only be placed in the

foremost hex of a Byzantine galley but it can shoot at any target within the 120° arc of the three front hexes. The target must either be a ship hex or a sail hex. In the case of the hexes containing both ship and sail, the shooter must announce which is the target (ship or sail). The consequences of this choice are explained later. However many hexes separate the war engine from the target hex, the accuracy of each particular shot is determined by consulting the War Engine Characteristics Table above and applying the appropriate penalty to the die-roll on the Missile Results table below.

8.2.2 Missile-fire results table

Die-roll	Arrow	Stone	Greek Fire
1	T	T	T
2	T	T + 1	T
3	T + 1	T + 1	T
4	T + 1	T + 2	T + 1
5	T + 2	T + 2	T + 1
6	T + 2	T + 3	T + 1
7	T + 3	T + 3	T + 2
8	T + 3	T + 4	T + 2
9	T + 4	D	T + 2
10	D	D	D

8.2.3 Explanation of results

T: Target hex. The projectile hits the hex chosen.

T + 'x': The projectile falls 'x' hexes distant from the target hex. Depending on the distance, the shooter rolls:

- 1D6 if the distance is 1 hex
- 2D6 if the distance is 2 hexes
- 3D6 if the distance is 3 hexes
- 4D6 if the distance is 4 hexes.

The result shows the hex in which the projectile falls. The die numbers are allocated clockwise, with hex number 1 being the hex that is located behind the target hex as a continuation of the straight line from the war engine.

D: Fault in the war engine, the projectile is not hurled. In each succeeding phase, and if the number of operators remains the same, a roll of 1D10 is used to determine whether there is a successful repair of the damage (e.g. a broken rope or jammed mechanism):

- 8-10: the war engine is repaired
- 1-7: the war engine remains broken.

Once the war engine is repaired, the number of phases to reload must be complied with.

8.2.4 Effect of damage

- Greek Fire: The inflammable mixture covers the surface of the 6 hexes around the target hex. The mixture will float on the surface of water. Place inverted fire markers on the 7 hexes affected. The mixture catches fire once a flame reaches it (due to a flaming arrow or an existing fire). Turn the fire markers face up. The mixture burns until the end of the scenario, even on water! Fire on a ship spreads as per the rules of SIEGE Roll each turn for each burnable adjacent hex, which should include the lower deck hex below an upper deck side hex: on 7-10 it spreads to that hex. Hexes where Greek Fire has spread are treated as ordinary fires. Characters cannot extinguish Greek Fire.

If one of the hexes reached by Greek Fire also contains a sail, this is also covered in naphtha and will catch fire at the same time as the rest...

- Flaming arrows: Use the rules from SIEGE.

Note: The French rules for flaming arrows in "Siege" differ from the English rules, with only one die-roll to determine success. Since the flaming arrow will always land somewhere, it would be best to use the ballista tables above when shooting at Greek Fire. Assume that Greek Fire mixture catches fire automatically if any flaming arrow hits it. The other rules from "Siege" still apply to flaming arrows shot from shortbows: e.g. short range only. Characters cannot enter a burning hex and must retreat from a hex to which a fire has spread. Each adjacent character can attempt to extinguish an ordinary fire once per turn, on a die-roll of 1-5 for a flaming arrow on its first turn of burning and 1-3 for other fires. Three turns of burning will destroy a hex: this should cause one point of hull damage, but the fire will remain burning with a continuing chance of spreading.

- Large Stone: If the affected hex is on a ship (or the upper deck of a large ship), the damage points inflicted are equal to those from the '12-17' row on the Collision Table in VIKINGS. If the affected hex is a sail, the damage is one sail point.