The Sixth Admiralty

The Dutch East India Company and the military revolution at sea, 1652-1665

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The Netherlands

Introduction

On 21 February 1665 the directors of the Dutch East India Company (VOC) agreed to equip, man and maintain twenty warships in the war with England which was declared eleven days later. Of these twenty ships, six were explicitly named. These ships, *Oranje, Maarsseveen*, *Nagelboom*, *Beurs van Amsterdam*, *Huis te Swieten* and *Dordrecht* belonged to the largest class of the Company's ships. They were also considerably larger than the warships of the admiralties. Of the six ships with over seventy guns in the Dutch fleet at Lowestoft in June 1665, four were in fact Company ships.[1] The other fourteen ships could be smaller, divided in two classes. In return for this reinforcement of the Dutch fleet, the Company would receive an extension of the charter until the end of 1700. The previous charter renewal process, in the 1640s, had been heavily contested. Quick renewal of the charter for a long period of time seemed like a good deal for the Company.

As the above example shows, the Dutch East India Company had a complicated relationship with the Dutch Republic's naval organization. While it profited from convoys organized in European waters by the admiralties, it also operated at times like an additional, sixth, admiralty board, though this relation was never formalized as such. This paper will examine this relationship, from the role the VOC played in the battle of the Downs in 1639, until the second Anglo-Dutch naval war. Focusing primarily on the technological developments of the VOC's ships, this paper will argue that some of these ships can in fact be regarded as warships, rather than hired merchantmen. By comparing the VOC's ships in the first and second Anglo-Dutch wars (1652-1654 and 1665-1667), this paper will show that VOC shipbuilding underwent important changes in the later 1650's which were in line with the developments in the Dutch admiralties. By comparing the armament lists of VOC ships as

[1] M.C. de Jonge, *Geschiedenis van het Nederlandsche zeewezen, eerste deel, tweede stuk* (2nd revised edition, Haarlem 1858) 776.

compared with the ships equipped by the respective admiralty boards, this paper will argue that the VOC's ships were not more lightly armed that the States' ships, and were thus an important addition to the total firepower of the fleet. This has consequences for the ways in which we see the 'naval revolution' or 'military revolution at sea' and the separation between Mars and Mercury.[2] The Company could, in fact, keep up with the technological developments in mid-century, seen by Jan Glete as the crucial phase of the naval revolution.[3] This paper will argue that rather than technological or organizational problems, the Company ultimately had to give up its role as a sixth admiralty due to inability to deal with the financial risks involved in battlefleet warfare. The Company relied on its ships to maintain its Company-state in Asia and to bring home the cargoes on which it revenues depended.[4] Risking these in battlefleet confrontations, where many ships might be lost at once, proved too risky to the Company and the agreement of February 1665 was changed. Rather than equip the ships itself, the Company would merely pay a lump sum to the admiralties of the republic.

This paper will first briefly outline the historical debate on the changes in naval warfare and the military revolution at sea. Subsequently, the relation between the VOC and the Dutch state and the first Anglo-Dutch war will be dealt with. The main focus will lie on the second Anglo-Dutch war, when the VOC supplied twenty ships for the States' service. By

[2] The term was introduced by Bruijn in: J.R. Bruijn, ' Mercurius en Mars uiteen. De uitrusting van de oorlogsvloot in de zeventiende eeuw', in: S. Groeneveld, M.E.H.N. Mout and I. Schöffer (eds.), *Bestuurders en Geleerden* (Amsterdam, 1985) 97-206, 97.

[3] J. Glete, *Navies and Nations: Warships, Navies and State Building in Europe and America 1500-1860, Volume 1* (Stockholm, 1993) 180-187. The chapter, tellingly, is called 'The decisive phase, 1650-1680'.

[4] For a short introduction of the idea of the Company-State, see: P.J. Stern, *The Company-State: Corporate Sovereignty & the Early Modern Foundations of the British Empire in India* (Oxford, 2011) 3-15. Stern argues that the chartered companies of the early modern period were in fact states in their own right, with their own politics, goals and ambitions. Stern applies this idea to the EIC, though it can most certainly be fruitfully applied to the VOC as well.

looking at details of armament, layout and construction, this paper will argue that we should see the VOC's ships as warships, rather than converted merchantmen.

Warfare at sea, 1600-1700

This section will briefly sketch the major debates and ideas in the sphere of naval warfare in the seventeenth century. The changing nature of naval warfare in the sixteenth and seventeenth centuries has been studied from a number of differing perspectives over the past decades. Geoffrey Parker included the new abilities of broadside sailing warships as an important part of his 'military revolution' thesis.[5] Other maritime historians have argued against the use of the moniker 'Military revolution', and have made cases for different concepts, as the 'naval revolution', or 'the fiscal-naval state'.[6] Yet all agree that naval warfare changed in important ways over the course of the sixteenth and seventeenth centuries. J.F. Guilmartin has argued that Europe actually went through four distinct military revolutions at sea, which came together to form the first global maritime empires.[7] This is an interesting argument, as the Dutch maritime empire (mostly seen as the VOC-world) is often seen as one of these maritime empires. Yet the Dutch were slow, according to Bruijn and Glete, to build fleets of dedicated warships to protect their empire.[8]

The increasing technological complexity of broadside sailing warships, it is argued, ultimately mitigated against the ancient tradition of hiring merchantmen in times of war and

[5] G. Parker, *The Military Revolution: Military innovation and the rise of the West 1500-1800* (2nd revised edition Cambridge, 1996) 82 – 114.
[6] N.A.M. Rodger, 'From the 'military revolution at sea' to the 'fiscal-naval state', *Journal for Maritime Research*, 13, No. 2 (2011) 119-128, 122.
[7] J.F. Guilmartin, ' The military revolution in warfare at sea during the early modern era: technological origins, operational outcomes and strategic consequences', *Journal for Maritime R*esearch, 13, No. 2 (2011) 129-137, 130.
[8] Though Glete is more positive about the pre-1653 Dutch navy: Glete, *Navies and Nations 1*, 154-158. This section also touches upon the use of private ships for warfare.

converting them for naval service by fitting extra guns.[9] Jan Glete argued that the rising technological complexities of naval warfare required dedicated complex organizations to effectively field them. Only the state, he argued, could organize the new technologies effectively, leading to a 'state monopoly of violence at sea'.[10] Glete's approach and analysis is useful, but there is an air of circular reasoning going on here: by refusing to look at private warships or non-state actors, the state is seen to be the dominant and only driving force in naval affairs. The problem then is why the Dutch did not invest more in their navies, even though the entire country depended on foreign trade to a much greater degree than other states. This is the question this paper will seek to address. It will add to the interpretation given by Louis Sicking, who argued that the Dutch, with their large merchant fleet, had an advantage in the period when mobilized merchantmen could still effectively serve in fleets. He argues convincingly that we should see this process of change as an evolution, in line with earlier developments, rather than a revolution.[11] However, he too argues that the change in technology was a root cause of changing fleet composition. He refines this by observing that once all parties had acquired the technology, fiscal resources became decisive. However, this paper will argue that the Dutch state had a large potential of privately-owned *war*ships which could be mobilized for fleet service. Can we better understand Dutch naval policy and force strength if we broaden our perspective from the state navies to the private, corporate bodies which supplied ships to the navy in times of war? This paper will focus primarily on the VOC during the second Anglo-Dutch war, but this question could also be asked for other organizations in other periods. In the Dutch case the global maritime empire was not a result of state action, but rather that of corporate bodies:

[9] Bruiijn, *The Dutch Navy in the Seventeenth and Eighteenth Centuries* (Columbia, 1990) 73-74.
[10] Glete, *Navies and Nations 1*, 6-13.
[11] L. Sicking, 'Naval warfare in Europe, c. 1330-c.1680', in: F. Tallt and D.J.B. Trim (eds.), *European Warfare, 1350-1750* (Cambridge, 2010) 236-263,262-263.

the chartered companies. Before turning to the naval developments within the Company between the Anglo-Dutch wars, I will briefly describe the changing relations between the Company and the Dutch States-General throughout the seventeenth century.

From state-supported Company to state-supporting Company; the first fifty years, 1602-1652

The VOC was not founded solely as a commercial organization. Warfare against the Iberian foes of the republic in Asia was in itself an important goal.[12] To further this end, the Company was reinforced by transfers of ships arms, and men from the admiralty boards to the Company. Already in 1602 the admiralty of Amsterdam tried to sell its largest ship to the new company.[13] In 1611, two years after the truce with Spain had gone into effect, the Company received four warships from the admiralties. This occurred again in 1619, when the admiralty of Amsterdam transferred three of its largest ships to the Company. A year after resumption of war with Spain in Europe in 1621, a large fleet of eleven ships was prepared to attack the Spanish on the West Coast of South America after which the ships would be transferred to the VOC.[14] These transfers of what amounted to the largest and best-armed warships did not always meet with the consent of the admiralties however. It was the States-General, rather than the admiralty boards which insisted on the transfers of these ships. However this largest class of ships had been built with long-range overseas warfare in mind. After the end of the truce, with warfare in the overseas world increasingly coming under the purview of both chartered companies (VOC for Asia and WIC for the Atlantic),

[12] Gaastra argues that commerce did come first, but once the idea of merging the companies had been raised, military considerations quickly became important in their own right. F. Gaastra, *De geschiedenis van de VOC* (7th revised edition, Zutphen, 2002) 19-20.
[13] J.P. Sigmond, *De Zeemacht in Holland en Zeeland in de zestiende* eeuw (Hilversum, 2013) 272.
[14] J.E. Elias, *De vlootbouw in Nederland, 1596-1655* (Amsterdam, 1933) 32-36.

these very large ships were unfitted to what became the admiralties' main focus: escorting convoys and blockading Flemish ports from which privateers operated against Dutch commerce.[15] The depredations of these Dunkirk privateers proved so effective that additional organizations for the protection of commerce were created. Urban *directies* which provided convoy escorts for ships bound to Norway and the Baltic were authorized in many cities in 1631. The herring fisheries had already provided its own escorts and from 1627 onwards the VOC also provided its own cruisers to escort its homeward and outward bound fleets in the North Sea.[16]

When a Spanish fleet of seventy-five ships entered the North Sea in 1639 with a view of reinforcing the Spanish Netherlands and defeating the Dutch fleet in battle, it was initially met by a Dutch fleet of only twelve ships in the Channel. Tromp, in the first recorded use of the line-ahead tactic, engaged and damaged the Spanish fleet, which sought refuge in the Downs. Tromp' s small fleet was reinforced over the next month (October) to a total strength of ninety-five ships. In the battle of October 31st, he annihilated the Spanish fleet. This is often seen as marking the moment at which the Republic became the dominant naval power of northern Europe.[17] From our point of view it is interesting to note the composition of Tromp's fleet: out of a fleet of ninety-five ships and eleven fire-ships, only eighteen were hired merchantmen. Forty-one were admiralty warships, while both the companies and the *directies* supplied thirty-six ships.[18] This improvised battlefleet worked well, because most hired ships were either warships themselves (WIC, VOC, *directies*) or likely heavily armed merchantmen working high-risk routes. The experience of the Downs would remain an important influence on Dutch naval thinking for the coming decades, not least in the mind of

[15] Bruijn, *The Dutch Navy,* 23-26.
[16] Bruijn, *The Dutch Navy*, 27.
[17] N.A.M. Rodger, *The Safeguard of the Sea: A Naval History of Britain, 660-1649* (London, 1997) 413.
[18] De Jonge, *Geschiedenis van het Nederlandsche zeewezen 1:2,* 753

Tromp himself. His plan for the strength and composition of the Dutch fleet of 1648 called for a fleet of 60 ships, with regular replacements being built. However, this was not a proposal for a fleet of heavy battleships on the English model. Rather, Tromp's proposal would guarantee an adequate number of small and medium ships for convoy duty. East- and West Indiamen, ships from the *directies*, and *straatsvaarders* were to be hired to supplement the battlefleet when this was considered necessary.[19] Tromp's proposal shows the idea of the mobilized battlefleet as a combination of state and private ships in its best form. If we omit these ships from the force calculations, we cannot understand Dutch policy in this period.

Mobilization: the first Anglo-Dutch war

The position of the Republic in 1648 seemed enviable: with Britain in the final throes of its civil war and Spain and France still at war, there were no serious rivals in the narrow seas. However, the republican regime in England, isolated internationally and afraid of foreign intervention, started a major ship-building program in 1648. Warship design quickly evolved, culminating in the two-decker warships of the *Speaker* class.[20] Equally serious for the Dutch was the steady and calamitous decline in the strength of the West India Company. While it had been able to support the States at the battle of the Downs in 1639, by 1647 the WIC needed state support to maintain its tenuous hold on its Brazilian colony. This undermined Tromp's fleet plan, in which both the chartered companies would provide the Dutch fleet in Europe with large ships upon mobilization in Europe. The decline of the West India Company made the VOC all the more important to the Dutch navies. However, when the States General ordered the conversion of a 150 merchantmen for naval duty in 1652, the VOC did

[19] Elias, *De vlootbouw*, 72-77.
[20] B. Lavery, *The Ship of the Line, Volume I: The development of the battlefleet 1650-1850* (London, 1983) 18-23.

not simply hand over its ships to the navies. Article thirty-nine of the original charter stipulated the following: 'That no ships, guns, nor ammunitions may be taken from this Company, for the service of this country, but with the consent of said Company.'[21] Use of the VOC's ships therefore had to be negotiated. This is a weakness in Tromp's fleet proposals of which he does not seem to have been aware. The Company was willing to hand over the small ships it used as convoys for its ships in European waters, but the Indiamen itself were a different question.[22] Staarman has analyzed the negotiations between the States and the Company in greater detail, so only the most important points will be stressed here.[23]

In July 1652, the VOC agreed to prepare four of its largest Indiamen for war in European waters. These ships were *Prins Willem* and *Henriette Louise* of the Zeeland chamber, and *Vogelstruys* and *Vrede* of the Amsterdam chamber. The first ship would be able to mount '50 to 60 guns', with a crew of 300, the other ships would mount around forty guns with crews of 200 men.[24] It was hoped that the necessary changes, amongst which was cutting extra gunports in the hull, could be completed within three weeks. The ships would be rented out free of charge, but there were some conditions attached. In the first place, the original agreement was binding for three moths only, after which the ships were to be released for Company service. Crews, ammunition and supplies would be paid by the admiralties. Moreover, if a ship was lost, the admiralties were cover the costs to the Company. This relatively harmonious cooperation broke down the following year as the

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[21] M. Witteveen, *Een onderneming van landsbelang: De oprichting van de Verenigde Oost-Indische Compagnie in 1602* (Amsterdam, 2002) 96. Dutch original: 'Datmen egheene schepen, geschut nochten ammunitie van dese Compaignie sal mogen nemen, tot dienste vanden lande, dan met consent vande selve Compaignie.'
[22] Elias, *De Vlootbouw*, 89-90.
[23] See, A. Staarman, 'De VOC en de Staten-Generaal', 3-9.
[24] HaNa, 1.01.02 Staten-Generaal 12581.22, *Memorie door gecommitteerde bewindhebbers van de V.O.C. aan de Staten-Generaal overgeleverd, na hun conferentie met gedeputeerden van de Staten-Generaal van 19 juli 1652, over het uitrusten van schepen behorende tot de retourvloot uit Oost-Indië, ten dienste van de Staat, 1652 juli 20. Twee exemplaren., 19 juli 1652*.

Republic's situation became increasingly problematic.[25] The Company offered an additional eight ships in January 1653, but six of these were to be hired by the Company from private owners, while two were still on the building stocks.[26] An inspection report by Godert van Reede tot Amerongen, of a Company warship of 130 feet stem to stern on the stocks in Hoorn in September 1653 probably relates to one of the two Company-built warships.[27] Some of these ships would be lost in the last year of the war. This would lead to long-lasting disagreements about the payment of damages, which, along with the claims from 1639, would only be paid in 1668.[28]

Effective use of the Company's ships was hampered by a number of factors however. In the first place there was a serious problem with the crews of the Company's ships. These had mustered for trading voyages to Asia, risky but possibly lucrative, and did not relish the prospect of warfare in European waters. Though mutinous crews were by no means only a problem on Company ships, effective use of the ships was seriously hampered.[29] The increasingly acrimonious relations between the States and the Company also hampered effective use of the Company's potential. When the States threatened to seize the Company's ships waiting to sail to Asia in the summer of 1653, despite the charter provision prohibiting this, these ships simply sailed off despite being prohibited to do so.[30] The Company did not lose a single ship during this conflict. Clearly, if the Company was to fulfill

[25] Staarman, 'De VOC en de Staten-Generaal', 5.
[26] Staarman, 'De VOC en de Staten-Generaal', 6.
[27] HaNa, 1.01.02 Staten-Generaal, inv.nr. 12561-120.2, *Stukken betreffende de bemoeiingen van de Staten-Generaal met de bouw van twee oorlogsschepen ten dienst van de V.O.C. door de Admiraliteit in Hoorn. 1653*.
[28] F.W. Stapel, *De Vereenigde Oostindische Compagnie in de Groote Oorlogen der XVII^{de} Eeuw: Rede uitgesproeken bij de opening zijner lessen in de koloniale geschiedenis op den 18 januari 1932* (Groningen, Den Haag and Batavia, 1932) 12.
[29] For example, the crew of the *Brederode* rebelled when vice-admiral Witte de With tried to hoist his flag there. Instead he had to use the Indiaman *Prins Willem*.
[30] Staarman, 'De VOC en de Staten-Generaal', 7-8.

its role as a support for the Republic's navy in the future, relations between the States and the Company needed to be harmonized.

Twenty ships for the States' service: the VOC in the second Anglo-Dutch war

On the eve of the outbreak of the second war between the Dutch Republic and England in March 1665, the Company and the States signed an agreement by which the Company would provide twenty ships to the Dutch fleet.[31] The process of acquiring the Company's support was very different from the previous war. The support of the Company had now been guaranteed well before the outbreak of the war and relations were much more amicable than before. Staarman points to the familial link between De Witt and the Amsterdam families which both ruled the city itself and manned the board of the VOC chamber Amsterdam. All negotiations between the Company and the States seem to have taken place through the Amsterdam chamber, rather than the full meeting of the XVII.[32] In return for providing twenty ships for the fleet, the Company would receive something most valuable in return: an extension of its charter until the end of the year 1700. The previous charter-renewal process had been arduous and heavily contested, both by the WIC as well as an upstart Frisian East India Company, so immediate extension of a charter that was due to expire in 1672 probably seemed like a good deal.[33]

Of the twenty ships, six were specifically named Indiamen: *Oranje* (Z), M*aarsseveen* (A), *t' Huys te Swieten* (A), *Dordrecht* (D), *De Beurs* (A), and *Nagelboom* (H). *Dordrecht* never seems to have joined the fleet but in its stead the chamber of Delft equipped the *Delfflant*.

[31] HaNa, 1.01.02 Staten-Generaal, inv.nr. 12581.31, *Akte waarbij de V.O.C. op zich neemt om gedurende de oorlog met Engeland twintig oorlogsschepen uit te rusten en te onderhouden. 1665 februari 21*.
[32] Staarman, 'De VOC en de Staten-Generaal',10-15.
[33] For the charter renewal in the 1640's, see: H. den Heijer 'Plannen voor samenvoeging van VOC en WIC', *Tijdschrift voor Zeegeschiedenis,* 13, No. 2 (1994) 115-130. For the Frisian opposition: F. Gaastra, 'Friesland en de VOC', in: Ph. H. Breuker and A. Janse (eds.). *Negen eeuwen Friesland-Holland: Geschiedenis van een haat-liefdeverhouding* (Zutphen, 1997) 184 – 196, 185-187.

Of the remaining sixteen ships, ten were required to mount at least forty guns, while the other four could be smaller ships. At least thirteen ships sailed with the Dutch fleet under Van Wassenaar van Obdam and suffered in the defeat at Lowestoft. Three of the largest Indiamen would be lost here: *Maarsseveen* and *Oranje* were burnt and blown up respectively, while the *Nagelboom* was taken. In addition, the hired c.q. bought ships *Carolus Quintus*, *Mars* and *Geldersche Ruiter* were taken by the English. This defeat was closely followed by the loss of some of the ships from the homeward-bound VOC fleet. After repulsing an English attack in Bergen harbor, the ships *Phoenix* and *Slot Hooningen* were lost to the English, along with their return cargoes.[34] In addition, the *Huis te Zwieten*, which acted as an escort for the returning fleet, was also lost. Ironically, most of these ships would also be lost by the English. *Huis te Zwieten* (renamed *House of Sweeds*) and *Phoenix* (*Golden Phoenix*) were used as blockships in the Thames in 1667, *Carolus Quintus* (*Charles V*) was burnt at Chatham in 1667, while the *Nagelboom* (*Clove Tree*) had been recaptured the preceding year.[35]

In the wake of these two disasters, and with new ships from the 1664-65 program nearing completion, the agreement between the States and the Company was changed. Instead of acting as a sixth admiralty, the Company would now pay the admiralties 1.200.000 guilders to maintain this number of warships for a year. The remaining VOC ships with the fleet were gradually released from service.[36] The Company claimed it could not bear the risk of further losses at sea and needed to preserve its ships to maintain its trades and possessions in Asia. The *risk* of battlefleet warfare, where large numbers of ships could be

[34] Warnsinck, *De retourvloot van Pieter de Bitter (kerstmis 1664-najaar 1665)* (Den Haag, 1929) 61.
[35] F. Fox, *Great Ships: the Battlefleet of King Charles II* (Greenwich, 1980) 179-180.
[36] HaNa, 1.11.01.01, inv.nr. 551, *Lijst van de schepen in de soorten als bij de generale Oost-Indische Compagnie zijn gemaakt, gekocht of gehuurd, alsmede waar dezelve zijn achtergebleven, zo verongelukt als genomen, verbrand of vermist en afgelegd. Alfabetisch, 1603-1778.*

lost at the same time, could not be tolerated by the Company. The question remains why the use of the Company's ships had ended in such failure. This is an important question, as it will allow us to look more closely at the proposed separation between Mars and Mercury.

There are a number of potential explanations which need to be examined: poor organization, unreliable crews, weak ships and armament and poor tactical command. Staarman states that in contrast to the first war, the VOC contribution was now well organized and VOC crews were now disciplined and mutiny was no problem.[37] The problem, according to Staarman was the emerging difference between purpose-built warships and the 'merchantmen' of the Company. Hainsworth and Churches, in their history of the Anglo-Dutch naval wars, agree with this point of view, noting that the VOC ships were more lightly gunned.[38] Before turning to examine these claims, a number of important points need to be made. When comparing the firepower of the VOC's ships, it is important not to compare them to English, but rather to Dutch warships. It is well known that English ships were more heavily gunned than Dutch and we need to know how the VOC's ships compared to Dutch warships to know if they could provide valuable support for the fleet. In the second place, it is important to keep in mind that at the time of the battle of Lowestoft, the Dutch fleet had not yet adopted the line ahead as its standard tactical formation. Rather, Dutch ships tried to damage and incapacitate rival ships by damaging rigging and then boarding them or burning them with fireships. It is in this tactical paradigm that the VOC's ships must be appraised.

Company *war*ships? Changes in Company ship design, 1650-1665

This section will examine the changes between the largest of the Company's ships which were mobilized for war in 1650 and 1665. Documenting technical changes in ship design in

[37] Staarman, 'De VOC en de Staten-Generaal', 15.
[38] R. Hainsworth and C. Churches, *The Anglo-Dutch Naval Wars 1652-1674* (Stroud, 1998) 125.

this period is notoriously difficult, as lists of ships are only partially complete for certain years and do not list information we would regard as crucial today. However, we are aided by some alternative sources. In the first place, the contemporary model of the Indiaman *Prins Willem*, today in the Rijksmuseum in Amsterdam, shows what this ship looked like after its conversion to a warship, with extra gunports on the main gundeck and without a forecastle.[39] For the ships which served in the second war, there are a number of the Van de Velde ship portraits. Especially, a rare sideways view of the *Beurs van Amsterdam* in the collection of the National Maritime Museum in Greenwich is important as this shows the placing and division of the gunports in the hull. Finally and perhaps most importantly, there are multiple fleet lists for the Dutch fleet which mobilized before the battle of Lowestoft. This last category of sources allow us to compare armament lists and sizes for both Company and State warships from the same period. Based on these sources, as well as the existing literature, I will argue a number of points. In the first place, that the six ships named specifically in the agreement between the Company and the States must be properly regarded as warships, rather than merchant vessels. Secondly, that the VOC changed its ship designs during the first Anglo-Dutch wars in accordance with Dutch warship design. Finally , that the VOC stopped acting as a sixth admiralty not because it was unable to build or maintain warships, but because it could not bear the risk of naval warfare in Europe. Finance and the ability to bear risk and adversity were of decisive importance, not technology in and of itself.

[39] Collection Rijksmuseum, NG-NM-11911, *Scheepsmodel van de Prins Willem*. See at: http://hdl.handle.net/10934/RM0001.COLLECT.342126

Dimensions

The ships provided by the VOC for the States' fleet in 1665 can be divided into four categories: the specifically named Indiamen, the ships hired and bought by the VOC which had to carry at least forty guns and thirdly the four small ships which were called *jacht*. We have dimensions for the ten ships which were fitted out by the VOC chamber Amsterdam from the report by De Witt and the other deputies on the fitting out of the fleet in Amsterdam, the *Noorderkwartier* and Friesland.[40] The given dimensions are length (stem to stern, not length of keel), width, depth of hold and the height between decks (on the lower gundeck), as shown in table 1.

Ship	**Guns**	**Length (feet[41])**	**Width (feet)**	**Length-width ratio**	**Depth of hold (feet)**	**height between decks**
Maarsseveen	76	170	38¾	4.44:1	13	7½
Huis te Zwieten	66	146	36	4.06:1	14¼	7½
De Beurs	52	150	31½	4.7:1	12¾	7
Carolus Quintus	54	132	32	4.125:1	13½	7
Hollandsche Thuijn	48	130	30	4.33:1	14	7¼
De Mars	50	145	29	5:1	14	7
Ruiter van Gelder	46	140	29	4.83:1	14	7
De Hoop	39	123½	28¼	4.3:1	13½	6½
Jacht de Anna	30	108	26½	4.08:1	11¾	6
Jacht de Ruijter	18	95	24½	3.88:1	10½	5¾

Table 1: Main dimensions of 10 ships equipped by the VOC chamber Amsterdam for the fleet, March 1665.

HaNa 1.01.02 Staten-Generaal, inv.nr.9228

[40] HaNa, 1.01.02 Staten Generaal, 9228, *Verbaal, overgegeven aan de Staten-Generaal door J. de Witt, M. van Crommon, E. Gleinstra, W. Royer en J. Drews betreffende hun verrichtingen als gecommitteerden naar de Admiraliteiten te Amsterdam in het Noorderkwartier en in Friesland om te onderzoeken wat door deze is gedaan inzake de extraordinaire aanbouw en uitrusting van oorlogsschepen., 1665 april 9*

[41] All dimensions are in Amsterdam feet of 28,31 cm to a foot, divided in eleven inches.

The individual variations in dimensions and proportions make it highly likely that these figures are very close to the actual dimensions, rather than being normative. There are a number of interesting observations we can make on the basis of these dimensions. In the first place, the ships are all quite long in relation to their beam. Absolute record-holders are the *Mars* (5:1) and *Beurs* (4.7:1). Even the very large *Maarsseveen* of 170 feet is comparatively slim (4.44:1). These dimensions signal that these are all what in Dutch were called *fregat-schepen*: frigate(d) ships. The sixty warships built for the navy in the early 1650's were slightly beamier. There was a transition from the first thirty ships to the second batch of thirty ships. The first batch had length to width relations of between 3.9:1 to 4.06:1, while for the second batch of thirty ships this relation was 3.8:1 for all sizes.[42] For the first batch of 24 ships built during the second Anglo-Dutch war, it would be around 4:1 after the charters were increased to allow longer ships.[43] The ships built, bought, and rented by the VOC were thus significantly longer in relation to their beam than the warships which would be built by the admiralties in the 1650's and 1660's. This likely reflected a search for speed which was not yet sought in making the underwater lines finer, but the overall hull longer.[44] Though this may have made the ships faster, it likely made them less stable gun platforms. The one exception in this list is the *Huis te Zwieten*, which had a length to beam relation of 4.06:1. It is likely that this was in fact the ship built for the Genoese navy but bought by the admiralty of Amsterdam in 1653 and renamed, according to Elias, '*t Huys te Swieten*'. The main dimensions of this ship correspond to those given by Elias.[45] In addition, this ship is much beamier in relation to its length (4.06:1), making it a more stable gun platform.

[42] Elias, *De* Vlootbouw, 114, 137.
[43] J.P. Bruijn (ed.), *7 Provincien: Een nieuw schip voor Michiel de Ruyter* (Franeker, 1997) 73-74.
[44] Glete, *Warfare at sea, 1500-1650 : maritime conflicts and the transformation of Europe* (London, 2000) 30.
[45] Elias, *Vlootbouw*, 150.

This also touches on a second point: the armament of the ships in relation to their size. *Huis te Zwieten* is twenty-four feet shorter than *Beurs*, but carried an armament almost as heavy (see table 2). The largest ships, the Indiamen *Maarsseveen* and *Beurs* are lightly armed in relation to their size and tonnage. *Maarsseveen*, though twenty feet longer than fleet flagship *Eendracht*, had a total weight of shot 300 pound less (see tables 2 and 3). However, this reflects the fact that the design considerations of the VOC ships were different. Rather than focusing on maximum firepower on a given hull, the VOC also needed good sea keeping, all-weather ability, range, and a large hold. This makes these ships a different type of warship from the shorter-range warships of European states.

Another important characteristic separating warships from merchantmen is the height between decks on the lower gundeck. Jan Glete put the importance of this between-deck height as follows: 'The height between decks had to be sufficient for the gun crews to work unhindered, a fact which increasingly separated warships from pure cargo carriers.'[46] In the Dutch navies, the height between decks for warships had been stipulated at seven feet at least.[47] This would allow efficient manning of the guns. Unarmed merchantmen often had no more than four feet height, and for armed merchantmen, five-and-a-half feet was deemed sufficient to be able to man the guns.[48] This in fact corresponds well with the dimensions of the gundeck on the *Prins Willem* of 1650.[49] The ships of the 1665 agreement had gundeck heights corresponding to those of the admiralty-built warships. There is thus an important shift in VOC shipbuilding during the 1650's, where the Company adopted some of the technical changes incorporated in the newer warship designs. This will also become apparent when we look at armament and the layout of the gundecks. Interestingly, the ships

[46] Glete, *Warfare at sea*, 29.
[47] Elias, *De Vlootbouw*, 57.
[48] Ibidem 93.
[49] Ketting, *Prins Willem*, 24-25 and 64.

rented by the Company also have higher gundeck ceilings, making it likely that they were specifically built to mount heavy guns.

Armament and gundecks

The following table shows the armament figures for four of the six Indiamen which were specifically named in the agreement between the Company and the States, plus the *Delfflant*, which was equipped instead of the *Dordrecht*. The Delfflant is an interesting ship, as it was purchased by the VOC chamber Delft in Amsterdam. The ship was originally called *Nuestra Senora de Rosario* and was building in Amsterdam for the principe of Montesarchio.[50] This, then, was not an Indiaman, but had been built from the onset as a warship. It the list of ships supplied by the VOC, it is called 'an extraordinarily neat ship'.[51] The figures are taken from the report on the state of the fleet at Texel by the deputies of the States General, amongst whom was De Witt himself. [52]

[50] M.S. Robinson, W. Richard and. W. van de Velde, *The Willem van de Velde drawings in the Boymans-van Beuningen Museum, Rotterdam, Volume I : Text* (Rotterdam, 1979) 33.
[51] Dutch: ' een extraordinaris schoon schip'.
[52] HaNa, 1.01.02, Staten Generaal, inv.nr. 9230, *Copie-Resolutiën ende verbaal van de heeren van Ommeren, Witsen, Raetpensionaris de Witt, Vrijbergen, van der Hoolck, Haren, Almelo en Gockinga, gedeputeerden ende gevolmachtichden van de Hoogh Moogende Heeren Staten Generaal naer Texel tot bevorderinge van de equipagie ende over 't emploij van 's Landts vloote*, *1665 april 3 - 1665 juni 1*.

Name ship	36 p	24 p	18 p	12 p	8 p	6 p	4 p	3 p	Total weight of shot (p)	Average per gun
Delfflant (70) D	1	4	21	20		24			894	12,7
Maarsseveen (76) A[53]		4	24	6	20		22		848	10,9
Huis te Zwieten (66) A		4	22	6	20		14		780	11,8
Beurs (52) A			4	20	18			10	486	9,3
Nagelboom (52) H			22		20			10	586	11,3

Table 2: armament VOC-ships with the States' fleet, 1665. Ha.Na, 1.01.02, Staten-Generaal, inv.nr. 9230.

Overall, there is a strong presence of iron eighteen- and twelve-pounder guns on the Company's ships, with a small number of twenty-four- or even thirty-six- pounder guns. In comparison with the English practice of mounting full thirty-two- or forty-pounder batteries on the lower deck, this armament looks perhaps puny, but it compares well with the admiralty-built ships of equal number of guns. From the same year we have accounts of the armament of the ships of the admiralties of the Northern Quarter and the Meuse. The most heavily armed warships of these two admiralties (of which armament was specified)are shown in the following table:

[53] Sometimes given as 78 guns. This count includes two stone throwing pieces in the fighting tops. I have focused here on 'ship-smashing' guns and omitted these.

Ship	year built	36p	24p	18p	12p	8p	6p	4p	2p	Total weight of shot (p)	Average per gun
Eendraght (72) M	1654	4	26		20		18		4	1116	15,5
Groot Hollandia (64) M	1544		4	18	24[54]		18[55]			816	12,75
Prins Maurits (46) M	1654			16	4	10	6[56]			452	9,8
Uytrecht (44) M	1654			12	16	12	4			528	12
Wapen van Nassau (56) NK			4	20	12	14		6		736	13,1
Gelderlandt (56) NK				22	12	10	4	8		676	12,1
Hollandsche Thuijn (56) NK				20	2	22	8	4		624	11,1
Westvrieslandt (50) NK				20	8	10	4	8		592	11,8

Table 3: armament of the largest ships from the Meuse an Northern Quarter admiralties, 1665.[57]

The difference between the flagship *Eendraght* and all other vessels is immediately apparent. Compared to the other large ships from these two admiralties, the VOC's ships were not singularly lightly armed. In terms of total firepower, the largest VOC ships in fact compared rather well with the regular warships of the 1650's building program. A main lower-deck armament of eighteen-pounders was not at all uncommon in the Dutch navy, or

[54] Of which 10 were chamber-pieces.
[55] Of which 8 were chamber-pieces.
[56] All of which were chamber-pieces.
[57] List compiled from two documents, for the Meuse ships: HaNa 1.01.02, Staten Generaal, inv.nr. 9227, *Verbaal, overgegeven aan de Staten-Generaal door C. Burgh, G. Glas en J. Kien betreffende hun verrichtingen als gecommitteerden naar de Admiraliteit op de Maze en in Zeeland om te onderzoeken wat door deze is gedaan inzake de extraordinaire aanbouw en uitrusting van oorlogsschepen. 1665 april 4 1 deel*. For the ships from the Northern Quarter: HaNa 1.01.02, Staten Generaal, inv.nr. 9230. This last list also contains specific information on the armament of the VOC's ships.

in fact even in the French under the 1674 *ordonance*.[58] In fact it is noteworthy that the armament of the Meuse's ships is even more irregular then the VOC's, comprising large number of chamber pieces even amongst its twelve-pounder guns. Only the *Beurs* compares rather bleakly with its main armament of twelve-pounders. *Maarsseveen*, though relatively lightly armed for its size, was still valuable simply due to the large number of guns she carried. However, it is safe to say that the VOC's ships in fact offered a substantial reinforcement to the fleet in terms of total firepower. It is noteworthy that in the English ordnance establishment of 1666, the captured VOC ships *Huis te Zwieten*, *Nagelboom*, *Slot Hooningen*, and *Phoenix*, are all listed as third rates with a lower deck armament of thirty-two-pound demi-cannon.[59] This mitigates against seeing the Company ships as too weak to bear a heavier armament. It would be worthwhile to study the availability of heavy guns to the Dutch navy in more detail. Within the tactical paradigm before the adoption of the formal line-ahead, larger numbers of the heaviest guns might not have been judged necessary. Additionally, it must be noted that English ships could frequently not use their lower-deck armaments because they were too close to the water.[60]

Besides mounting more and heavier ordnance on gundecks with higher ceilings, the internal layout of the VOC's ships changed as well in the decade 1654-1664. From the model of the *Prins Willem*, in its guise as a warship, we can deduce some features of VOC shipbuilding on the eve of the first Anglo-Dutch war. In the same year that *Prins Willem* was fitted out for the Zeeland chamber of the VOC, the admiralty of Amsterdam finished what was then the largest Dutch warship, outclassing even *Brederode*: the *Vrijheyt*. Comparison of these two ships will help us identify some of the main differences between a warship as built

[58] Lavery, *The Ship of the Line I*, 53.
[59] Fox, *Great ships*, 184-185.
[60] During the attempts to intercept the Dutch fleet and VOC ships after Bergen, the *Hector* foundered because water came in through the lower open gunports: Hainsworth and Churches, *The Anglo-Dutch Naval Wars,* 134.

by the Republic's largest admiralty board, and a large VOC ship. For the *Vrijheyt* we have the drawing by Willem van de Velde in the National Maritime Museum in Greenwich, while for the *Prins Willem* we can use the model.[61] Focusing our attention on the size and placement of the gunports in the hull, it immediately becomes apparent that there are important differences between the two ships. *Vrijheyt* has a slightly curved lower gundeck, with the center ports closest to the water. However, all guns are on the same deck, easing command and control and ammunition dispersion etcetera. In contrast, the *Prins Willem* also has a sheered lower gundeck, but there is a step down to the guns in constable's room.[62] In this period this is an increasingly archaic feature on warships, having been abandoned in England as early as 1618.[63] The sheer in the gundeck of the warships was criticized because the lower-lying central ports, which often mounted the heaviest guns, tended to scupper water when opened in rough weather.[64] Tromp proposed completely flush gundecks in 1650, to rectify this problem. This innovation was in fact introduced in the new ships of the 1653 program. There are a number of Van de Velde drawings of the VOC-ships, as well as the ships bought and rented by the VOC in the second war. From these it is apparent that the VOC also introduced the flush gundeck on its ships, the last gunports cutting through the whales. The best for our purposes are the drawings of the *Maarsseveen* in the collection of the Boijmans van Beuningen museum in Rotterdam, as well as the drawings of the *Beurs* in the collection of the NMM in Greenwich.[65] Especially the rare side-view of *Beurs* is very valuable, as this allows us to study the sheer of the gundeck and the disposition of the gunports. It is immediately apparent that *Beurs*, has a very different internal layout from

[61] For the Van de Velde drawing in the Maritime Museum in Greenwich: PAH5006, tentatively dated to 1653.
[62] See also, Ketting, *Prins Willem*, the drawing on pages 24-25 and 104-105.
[63] Lavery, *Ship of the Line*, 14.
[64] Witte de WIth complained about this tendecy in the *Brederode*, Elias, 62-63.
[65] For *Beurs*: NMM PAH3864. This record says the ship was built in 1654, however Dutch Asiatic Shipping mentions the ship only from 1661 onwards.

Prins Willem, probably built around a decade earlier.[66] *Beurs* is a two-decker with nearly completely flush gundecks. In addition the gunports on the upper gundeck are larger, an thus able to mount heavier guns, and the ports are more rationally and evenly spaced than on *Prins Willem*. These differences can also be seen on the other ships of which drawings are available. It is clear that VOC shipbuilding incorporated the changes in warship design after the first Anglo-Dutch war, even though the VOC was loath to offer its ships for the States' service.

Conclusion

In this paper I have argued that at three occasions during the seventeenth century the VOC operated as a sixth admiralty in support of the regular five admiralties. It was by no means the only organization to do so. The WIC had supported the fleet at the Downs, as had the urban *directies*. These last organizations also equipped ships during the first war with England. By 1665, however, only the VOC was left able to operate in this capacity. On the 21st of February, eleven days before war was declared, the VOC directors at Amsterdam agreed to supply the Dutch fleet with twenty warships. In return the VOC's charter would be extended until the end of the year 1700, a most precious asset. In many ways, this was fully in line with Dutch fleet-strategy during most of the century. What is remarkable is the ease with which the agreement was reached and the speed at which the ships where equipped, a marked contrast with the war more than a decade before. The failure of the fleet at Lowestoft and the loss of part of the homeward-bound fleet after Bergen forced the VOC to renegotiate the deal. It would no longer equip twenty ships itself, but rather pay the admiralties for doing so in its stead. This marks the end of the VOC's activity as an

[66] Compare the Van de Velde drawing NMM PAH3864 with the drawings of the model of *Prins Willem* by Ketting.

impromptu ‘sixth admiralty’, though the Frisian States did vainly try to force the Company in this role once more during the *Rampjaar* of 1672. This is often presented as the inevitable result of the development of naval technology and organization: the naval revolution. The VOC’s ships are presented as mere armed merchantman, which had no business in the battlefleet engagements of the Anglo-Dutch wars. In this paper I have tried to modify this view.

By comparing the VOC’s ships of the mid 1660’s with the ones of the early 1650’s, I have shown that VOC shipbuilding underwent a marked change during this period of little over a decade. While the *Prins Willem* had sharply sheered decks, with gunports following the line of the wales, and a stepped gundeck aft, the ships of the later 1650’s and 1660’s had none of these features. Flush gundecks with gunports cut through the wales and a regular placement of the ports over two gundecks to achieve a better weight distribution are characteristics of the later ships. The gundeck ceiling was raised by two feet, enabling easier use of the guns. These are all characteristics that are stated in the literature as belonging to warships, rather than merchantmen. In addition, the ships of the mid-1660’s were significantly heavier armed.

Whether ships were suited to fight at sea is not solely a function of their armament, though looking at the literature for our period it might sometimes seem to be the case. The VOC’s Indiamen were rather lightly armed in relation to their large size. However, the *Delfflant* and *Huys te Zwieten* probably were built as battleships rather than VOC Indiamen and were heavily armed in relation to their size, at least by Dutch standards. In addition, the *total weight of shot* of the larger VOC ships compared well with that of the larger admiralty warships. Thus, though the VOC ships were perhaps not heavily armed in terms of their total size, they were still useful contributions to the battlefleet of the Republic. The changes in

VOC shipbuilding during the previous decade had ensure this. The fleet of the Republic simply did not have enough big ships to be able to miss the VOC's contribution. The VOC's Indiamen *can* therefore be regarded as warships, but a very specific type of warship. The VOC required, for the defense of its Company-State in Asia, as well as protection on the long voyage there, a warship with a different balance between battleship and cruiser qualities than were required in the short-range concentrated fleet battles in the sheltered waters of the North Sea. The VOC could offer these ships for the States' fleet and maintain them in battle. As it turned out however, the Company could not bear the burden of the *risk* of battlefleet warfare. The admiralties could turn towards the State General for additional subsidies in tough times, which could then raise taxes or loans. For the Company, which whose ultimate goal was returning money to the investors and which depended on the safe return of its ships and for whom the ships where important revenue-earning investments, the risks were insurmountable. An agreement whereby the Company would pay the state a set amount of money in return for its privileges offered safer recourse.

It was thus not the evolving technology of naval warfare which forced the Company out of its role as 'sixth admiralty', but the problem of financial stability. This is an important point. As this case illustrates, Mars and Mercury parted later than is commonly assumed. Private bodies could organize for naval warfare until quite late in the seventeenth century. The shipbuilding program of 1653, seen as revolutionary by Bruijn, seems less so from this perspective. This program was important from an organizational, rather than a purely technical point of view. The conscious choice for heavier battleships in the 1664 program seems like a break-off point in technological terms. After the ships of the 1664 program joined the fleet, keeping on large private warships no longer made sense, as the new ships were more specifically built with the demands of broadside firepower in mind. In studying

the size and building policy of Dutch navy in the seventeenth century, as Glete has done, we must keep those private warships which could be mobilized in view, as Dutch strategy was always heavily reliant upon mobilizing these private ships for battlefleet duty. Dutch naval history is incomplete without them and the interest-aggregation processes shaping force size and types of ships were deeply influenced by these private ships.