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## Amsterdam shipping and trade to Northern Russia in the Seventeenth Century

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	blz.
J. C. A. de Meij, De watergeuzen en de Nederlanden 1568-1572 (C. G. Roelofsen)	75
K. R. Andrews (ed.), The last voyage of Drake and Hawkins (A. de Booy)	77
C. de Jong, Geschiedenis van de oude Nederlandse walvisvaart, deel I (P. Dekker)	78
R. Fruin, De oorlog van 1672 (Ph. M. Bosscher)	80
Nic. Witsen, Architectura Navalis (W. C. Harthoorn)	80
J. H. van den Hoek Ostende, De geschiedenis van het College Zeemanshoop 1822-1972 (L. L. von Münching)	81
K. Borstlap, Slepen op de zeven zeeën (J. H. Bolland)	81
L. de Jong, Het Koninkrijk der Nederlanden, Deel 3 (K. W. L. Bezemer)	82
F. Bargoni en F. Gay, Corazzate classe Conte di Cavour (Ph. M. Bosscher)	83
A. Blussé van Oud-Alblas, De geschiedenis van het clipperschip (R. E. J. Weber)	84
W. Chr. Donraadt (ed.), Zij waren er bij; eilanders op de walvis- vaart (S. J. de Groot)	84
W. Ferguson, De magie van Kaap Hoorn (R. E. J. Weber)	84
Nieuwe boeken en artikelen	86
<b>VERENIGINGSNIEUWS</b>	
Jaarverslag van de Nederlandse Werkgroep voor de Geschiedenis van de Noord- en Oostzeehandel	96
Studiereis naar Stockholm	97
<b>NOTEN</b>	105

ARTIKEL EN

**AMSTERDAM SHIPPING AND TRADE TO NORTHERN RUSSIA  
IN THE SEVENTEENTH CENTURY \***

by Dr. Simon Hart

"De seevaert ende commertie hanght aen den anderen als een  
ketting; d'een can sonder d'ander niet bestaen."  
(Sailing and trade depend upon each other like a chain; one  
cannot exist without the other.) 1)

In this article an attempt was made to give a new contribution to the knowledge of the history of the Dutch shipping trade in the seventeenth century. This branch of maritime history that is of international interest has been studied insufficiently. This study was restricted mainly to an examination of the Amsterdam notarial archives. The main problem is that an examination of this very important source for the history of shipping and trade is very time-consuming.

In the seventeenth century shipping and trade to Northern Russia was almost exclusively centered in Amsterdam. In this study I confined myself to Archangel and Lapland, the areas of Northern Russia that were of interest for trade and shipping 2). Special attention was given to shipping. By means of an analysis of a great number of notarial charter-parties an attempt was made to enlarge our knowledge of shipping. Lack of statistical material makes it difficult to determine the size of Dutch shipping and trade in the seventeenth century 3).

Charter-parties

A charter-party is a written contract of a special character between a freighter (or freighters) and a shipmaster (who acts in name of the shipping company) 4). A broker acted as intermediary between the parties who usually met at the exchange or the merchant gave the broker instructions about the freight-price. Apparently it depended upon the circumstances or the wish of the freighter or skipper whether the agreement was put in writing by the notary and signed by the parties. In the notarial charter-parties it is sometimes mentioned that an agreement had been reached before. 5) For every route the percentage of notarial charter-parties is different. It is much lower for the Baltic route than for shipping to Northern Russia 6).

The charter-parties that were not passed before a notary can of course not be examined. Also the third group of charters, viz. of ships that sailed entirely at the risk of the shipping company as far as the cargo was concerned, could not be taken into account. These ships are called general cargo carriers. The skipper or the shipowners had to find their own orders from various merchants or private parties in Amsterdam or Archangel, who would ship one or more lasts.

In this article the lasts that are mentioned are lasts of 2000 kilog. of rye. One last is two tons. For heavier and lighter goods there are methods of computation to arrive at a ship's last. Sometimes this was put down in the notarial charter-party 7).

My examination of the Amsterdam notarial charter-parties to Northern Russia yielded some 2100 charter-parties in the period 1594-1700. I am of opinion that these make up some 50 to 60 % of the charter-parties. This estimate is based upon information obtained from the literature on this subject and for a number of years I have found better founded estimates. The estimate of an average of a century of about 35 ships a year on this route must be considered as very preliminary. Sometimes there are considerable deviations for certain years 8).

\*notes see below, pag. 105

### The Cargo Capacity of Ships going to Northern Russia.

First of all an attempt was made to compute the cargo capacity of the ships that went to Archangel and Lapland. As it appeared to be impossible to do so for certain ships (mainly in the period 1631-1640), the number of charter-parties at our disposal was given in brackets before the number of ships. The figures are:

(60)	60	ships	in	1594-1600	with	an	average	of	$95\frac{1}{2}$	lasts	per	ship
(167)	165	"	"	1601-1610	"	"	"	"	109	"	"	"
(160)	160	"	"	1611-1620	"	"	"	"	101	"	"	"
(206)	200	"	"	1621-1630	"	"	"	"	113	"	"	"
(319)	292	"	"	1631-1640	"	"	"	"	$119\frac{1}{2}$	"	"	"

After 1627 a lot of rye was shipped from Archangel, as a result of which the number of ships taking that route increased steadily. The tonnage of the ships that touched at Lapland or that berthed there for a longer period of time appears to have been smaller, for in the period 1594-1600 there were twelve such ships with an average of 83 lasts and after that respectively twenty with an average of 81 lasts; 36 of 72; 36 of 83 and 22 with an average of  $107\frac{1}{2}$  lasts 9).

The small number of ships that was freighted from Archangel to Germany, England, France, Spain or Portugal allows no further computations.

Shipping from Archangel to Italy was at its peak in the period 1601-1610 with 36 ships with an average of 125 lasts.

During the Russian civil war (the Smuta 1605-1616) when Russia was also at war with Poland and Sweden, many foreigners tried to save life and goods. This can be seen from the charter-parties. In the nine years preceding the war 1594-1604, there were 107 ships giving an average of twelve charter-parties a year. In the period 1605-1613 there were 157 ships with an average of seventeen charter-parties a year and from 1614-1622 there were 137 ships with an average of fifteen charter-parties a year. We may compare the average cargo capacity of the ships that sailed on the route Amsterdam-Archangel-Amsterdam with that of ships sailing on different routes. Yzerman gives an average of 81,3 lasts for ships sailing to Spain and Portugal from 1594-1602. Christensen arrives at an average of 79 lasts for 335 ships sailing to the Baltic in the years 1594 and 1595. It is a pity that we do not know the capacity of the ships that were sent to Russia by the Russia Company.

From these data I would like to conclude that the Dutch trade (in fact the Amsterdam trade because here the entire trade to Russia was centered) had probably overshadowed the English trade to Northern Russia by the end of the sixteenth century.

### Freight-prices.

By means of the Amsterdam notarial charter-parties for Northern Russia we can get a picture of the average freight-price per last of cargo in the years 1594-1645. Minus a few exceptions 10) my computation of the price per last of cargo of before 1628 is based upon the cargo capacity of ships in lasts and the freight-price as mentioned in the charter-parties (e.g. 100 lasts, f 2300.-). The charter-parties of after 1627 usually give the cargo capacity in lasts and the freight-price per last. With the charter-parties of before 1645 I required that the cargo capacity had to be mentioned in the charter-party. This limited the number of ships that could be used for the computation of the average freight-price. Experience has taught me that if the size of a ship is given in feet, the existing methods for the computation of the cargo capacity of a ship in lasts show too many deviations. It was possible to arrive at this conclusion because of a great number of ships the size is given in feet as well as in lasts. After 1640 the size of the ships is more and more given in feet. Of various ships length and width are further only given in Amsterdam feet and inches. Before 1667 only the local feet measures are given for ships built in Zaandam, Edam, Enkhuizen, Hoorn or Medemblik. I do not yet know how the Zaandam foot compared to the Amsterdam foot. These limitations influenced the construction of the table below and prevented these computations from being continued after 1645. After 1645 my freight-prices per last are mainly based upon statements in charter-parties of ships that carried grain (mainly rye) from Archangel. The cargo capacity of these ships was usually given in lasts.

My computation of the freight-prices per ton (=  $\frac{1}{2}$  last) in English currency is based upon the rates of exchange London-Amsterdam that appear in the protests of bills of exchange in the Amsterdam notarial archives (1594-1645, 1651, 1652). The five-year averages are based upon yearly averages. The number of rates of exchange that were found per year vary strongly. The computation of the rates of exchange in a given year is based upon the average of that year 11).

It appeared possible to get some idea of the factors that influenced the freight-price in shipping to Northern-Russia from the notarial charter-parties, various affidavits of merchants and their agents and from ships's protests. It was examined whether it was of any influence if the ships carried merchandise and/or cash on the outward journey, whether the number of lay-days in Archangel made any difference and what influence the number of guns on the ships and if possible the number of the crew had upon the calculation of the freight-price.

Special attention was paid to the charter-parties of some freighters who chartered a great number of ships for Archangel in a certain year. As the first of these I would like to bring forward Selio Marselis (merchant in Amsterdam) and his brother Peeter Marselis (who calls himself Marcellus and is often so journeying in Russia) who made a great number of contracts with Coenraed Poppens (merchant in Bremen) 12). In between May 18 and June 25, 1633 there are no less than 32 notarial charter-parties of them 13). Almost all of these ships must have loaded rye in Archangel. It is stipulated every time that on the outward journey goods have to be carried to Archangel. Thirty-one of these ships had a lay-time of one month in Archangel and for one ship this was three weeks. The total cargo capacity of these ships was 3837 lasts. This gives an average of 120 lasts a ship. On the whole the price of a last stands for the freight-price of one delivered or unloaded last of rye in the port of destination. If rye was loaded the price per last was usually f 1,- to f 1,50 higher and if this was barley the price per last was f 1,- lower 14).

Together with Selio Marselis, Peeter Marcellus had bought a consignment of 1450 lasts of rye in Russia. After the ships had been chartered for Archangel, the well-known Amsterdam merchant Elias Trip (for one fourth share) and the brothers Jan and Pieter Gerritsz. Hooft (together for one fourth share) participated in this transaction on June 2, 1633. Each partner had to see to it that his share in the purchase price of the rye, that amounted to a total of f 102.750,- was available in cash in Archangel in time 15).

For the shipping of these 1450 lasts of rye a total of thirteen ships were chartered before or on June 2, 1633, viz. ten unarmed ships at f 18,- a last and three other ships armed with ten iron guns at f 20,- a last. The size of these ships varied from 100 to 150 lasts. Their total cargo capacity was 1490 lasts. This yields an average freight-price of f 18,50 or £ 1.12.10 per last or £ 0.16.5 per ton.

The buying price of this rye was f 71,- a last. I am confident that delivery in Archangel was F.O.B., to which 2% at the most for tolls and other expenses must be added. The low freight-price must have been very welcome. This may have persuaded Elias Trip and the Hooft brothers to sign the contract on June 2. In June 1633 rye was quoted at the Amsterdam exchange at f 128,10. In October 1633 this price had dropped to f 114,80.

More deeds concerning the sale of rye must have been passed, for in this year nineteen other ships were chartered by them. We may assume that more people whose names are not mentioned were involved in the larger consignments.

In the period of June 3 till July 25, 1633 Selio and Peeter Marselis together with Coenraed Poppens, chartered these nineteen ships, the total capacity of which was 2347 lasts. Ten of these ships were unarmed, three were each mounted with 10 to 11 iron pieces and five each with 6 to 7 iron pieces. The one ship that was mounted with 2 iron pieces can be considered as being unarmed. If we take a look at the freight-prices of these ships, it appears here also that for ships, armed with 10 iron pieces the freight-price is f 2,- per last higher. For a ship armed with 6 to 7 iron pieces the freight-price was f 1,- per last higher.

The size of these ships varied from 100 to 140 lasts. The average freight-price and June 23, 1633, fluctuates between f 16,75 and f 17,25 a last.

Table average freight-price Amsterdam-Archangel-Amsterdam 1594-1645

Period	Number of ships	Average capacity in lasts	Number of lasts	Average price per last in guilders	Average price per ton in guilders	Average rate of exchange pound Sterling comp. to guilder	Price per ton in pound Sterling
1594-1600	39	98	3854	25.-	12,50	10,35	1. 4. 2
1601-1605	30	116	3487	22,57	11,29	10,93	1. 0. 8
1606-1610	39	110	4276	23,22	11,61	10,55	1. 2. 0
1611-1615	48	105	5056	19,53	9,76	10,61	0. 18. 5
1616-1620	51	108	5530	19,74	9,87	10,54	0. 18. 9
1621-1625	37	115	4268	18,82	9,41	10,78	0. 17. 5
1626-1630	108	125	13491	27,47	13,72	10,98	1. 5. 0
1631-1635	221	118	26018	21,92	10,96	11,18	0. 19. 8
1636-1640	32	135	4342	25,37	12,69	11,16	1. 2. 9
1641-1645	26	151	3931	28,07	14,04	11,79	1. 3. 10

price is f 19,70 or £ 1.14.11 a last or £ 0.17.5 a ton. When we add these to the first 32 ships the average freight-price is f 19,25 a last or £ 0.17.1 a ton.

The average size is then 120 lasts (= 240 tons). The unarmed ships were less than 120 lasts and also unarmed were three ships of 120, two of 125, three of 130 and two of 140 lasts.

After June 2, 1633 the price per last per ship seems to rise a little. Before June 2 f 18.- was asked for unarmed ships and after that date f 19.- per last was asked.

From July 16 till July 27, 1632 the Amsterdam merchants Jan and Pieter Gerritsz. Hooft 16) chartered nine unarmed ships of 120 to 150 lasts to bring rye from Archangel. On the journey Amsterdam-Archangel the ships had to carry merchandise and a few ships carried cash (silver coin). Their total capacity was 1168 lasts 17). The freight-price per delivered last of rye was f 20,- or £ 0.17.9 a ton.

On July 6, 1632 Pieter Ranst chartered three unarmed ships at f 18.- a last or £ 0.16.1 a ton 18).

For the two unarmed ships that were chartered by the Marselis brothers and Poppens on July 10 and 19, 1632 a price per last of f 22.- and f 20.- was asked 19).

On July 12, 1632 Jonas Abeels chartered three unarmed ships that had to carry merchandise on the outward journey. Here the price was f 20,- for a last of rye and f 21,50 for a last of wheat 20).

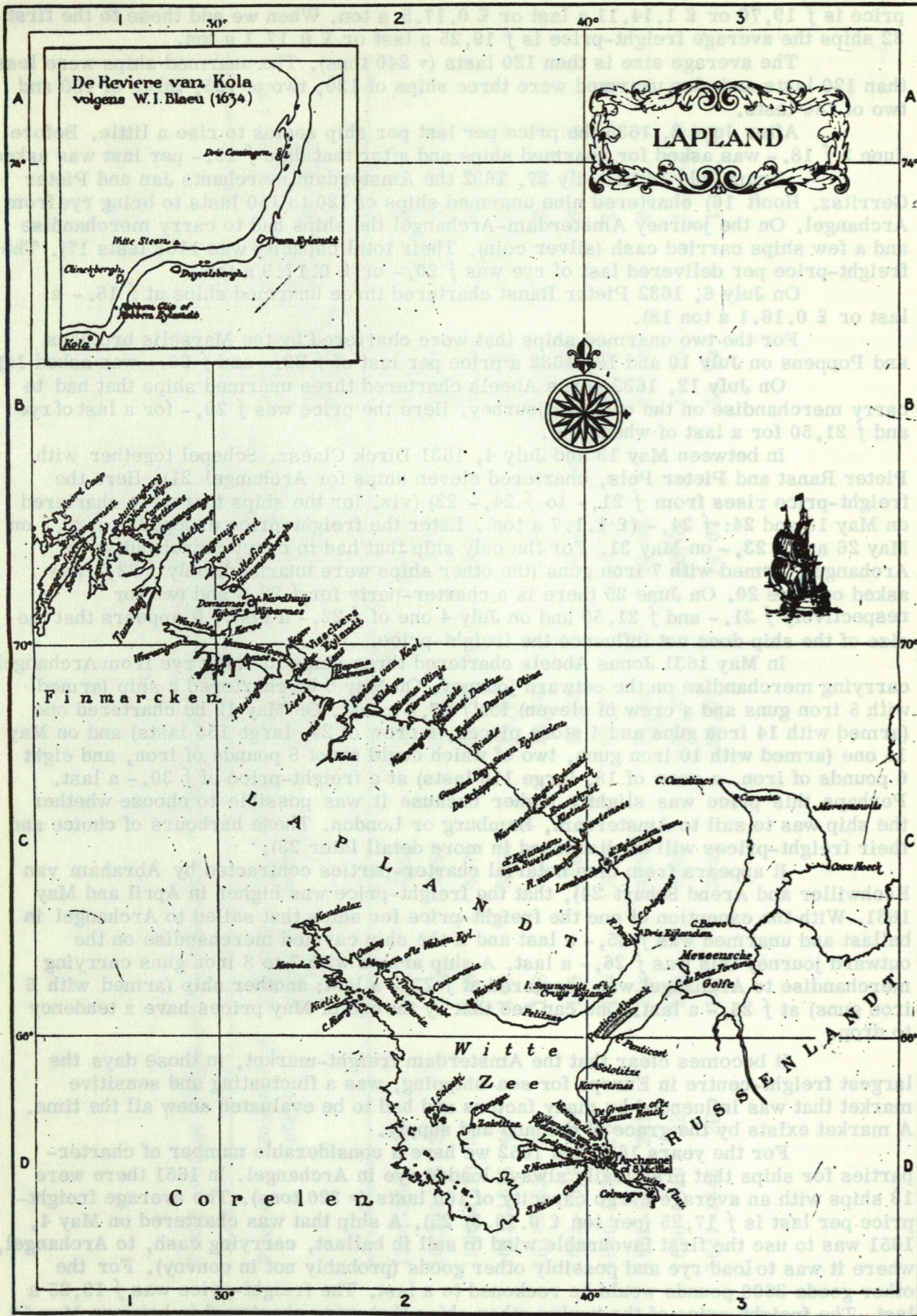
In between May 13 and July 4, 1631 Dirck Claesz. Schepel together with Pieter Ranst and Pieter Pels, chartered eleven ships for Archangel 21). Here the freight-price rises from f 21,- to f 24,- 22) (viz. for the ships that were chartered on May 13 and 24: f 24,- (£ 1.1.7 a ton). Later the freight-price dropped to f 22,- on May 26 and f 23,- on May 31. For the only ship that had to carry merchandise to Archangel, armed with 7 iron guns (the other ships were unarmed) only f 22,- was asked on June 20. On June 25 there is a charter-party for f 22,- and two for respectively f 21.- and f 21,50 and on July 4 one of f 22,- a last.) It appears that the size of the ship does not influence the freight-price.

In May 1631 Jonas Abeels chartered three ships to bring rye from Archangel carrying merchandise on the outward journey. On May 5 he chartered a ship (armed with 5 iron guns and a crew of eleven) for f 27,- a last. On May 12 he chartered one (armed with 14 iron guns and 4 stone pieces, a crew of 24, large 155 lasts) and on May 14 one (armed with 10 iron guns, two of which could shoot 8 pounds of iron, and eight 6 pounds of iron, a crew of 18, large 110 lasts) at a freight-price of f 30.- a last. Perhaps this price was slightly higher because it was possible to choose whether the ship was to sail to Amsterdam, Hamburg or London. These harbours of choice and their freight-prices will be discussed in more detail later 23).

It appears from nine notarial charter-parties contracted by Abraham van Eschwiller and Arend Schuyt 24), that the freight-price was higher in April and May 1631. With the exception of one the freight-price for ships that sailed to Archangel in ballast and unarmed was f 25,- a last and if the ship carried merchandise on the outward journey this was f 26,- a last. A ship armed with 7 to 8 iron guns carrying merchandise to Archangel was chartered at f 27,- a last; another ship (armed with 6 iron guns) at f 26,- a last. One can see that by the end of May prices have a tendency to drop.

It becomes clear that the Amsterdam freight-market, in those days the largest freight-centre in Europe for sea-shipping, was a fluctuating and sensitive market that was influenced by many factors and had to be evaluated anew all the time. A market exists by the grace of demand and supply.

For the years 1651 and 1652 we have a considerable number of charter-parties for ships that practically always loaded rye in Archangel. In 1651 there were 13 ships with an average cargo capacity of 160 lasts (= 320 tons). The average freight-price per last is f 17,25 (per ton £ 0.15.3) 25). A ship that was chartered on May 4, 1651 was to use the first favourable wind to sail in ballast, carrying cash, to Archangel, where it was to load rye and possibly other goods (probably not in convoy). For the other goods 3600 pounds would be reckoned to a last. The freight-price was f 19,25 a last. The freight-price of the twelve other ships that were chartered in between May 19 and June 22, 1651, fluctuates between f 16,75 and f 17,25 a last.



For the year 1652 we have 37 charter-parties that can be used in our study. Of these ships the total cargo capacity was 6222 lasts, which gives an average of 168 lasts (= 336 tons) a ship. The average freight-price is almost f 18.- a last (£ 0.16.6 per ton) 26). To this we can add the following remarks.

For two ships that were chartered on April 30, 1652 the freight-price was f 19.-; in charter-parties of May 4 it was f 18,50 and f 17,75. Then on May 10 it is f 18,25 and on May 11 f 19,-. The freight-price of the other 31 ships that were chartered in between May 10 and July 4, 1652 fluctuated between f 17,25 and f 18,25 (viz. two at f 17,25; four at f 17,50; four at f 17,75; nineteen at f 18.- and two at f 18,25 a last.)

The armament of the ship did not influence the freight-price very much, it can cause a difference of f 0,50 a last. Most grainships usually sailed in convoy and were unarmed. It was pointed out above that for a great number of ships it is impossible to compute a price per last. That's why it is not possible to arrive at an average price per last for quite a number of years. For those years it seemed desirable to mention the freight-prices per last that appear in some charter-parties. Where an average price per last for the route Amsterdam-Archangel-Amsterdam could be computed, this was done.

1647	June	f 25,-
1648	July	f 23,-
1650	June 10	f 25,- (6 iron guns)
1650	July 1 & 5	f 18,50, f 19,50 and f 20,-
1650	July 7	f 23,- (6 iron guns)
1650	July 18	f 23,-, f 16,50 and f 17,-
1653		f 20,- and f 21,-
1654		f 28,75
1655		f 31,- and f 36,50
1656		f 18,20 (average freight-price 12 ships)
1658		f 17,10 ( " " 4 " )
1659		f 17,60 ( " " 7 " )
1660		f 17,50
1661		f 20,-
1662		f 23,-
1664		f 20,- (6 iron guns), f 20,25 (8 iron guns)
1666		f 39,- and f 37,-
1667		f 40,- (4 ships) and f 39,- (1 ship)
1669		f 23,50
1671		f 23,-
1672		f 52,-
1674		f 27,25 (5 iron guns)
1675		f 24,- (average freight-price 8 ships) 27)
1676		f 23,- ( " " 5 " ) 28)
1677		f 23,50 ( " " 4 " ) 29)
1678		f 31,- (1/3 heavy goods)

1679	f 26,50 30)	and f 27,- (hemp, Russian leather) 31)
1680	f 19,-	(tallow, hemp and mats), f 16,- (rye) and f 21,- (2 ships)
1682	f 20,-	
1685	f 21,-	(potash), f 27,- (tallow), f 25,- (hemp), f 29,- (Russian leather) and f 35,- (elk-hides)
1687	f 19,-	and f 19,75
1688	f 20,-	(tar)
1690	f 30,-	(tar)
1693	f 39,-	(rye) and f 40,- (other goods)
1694	f 29,50	(rye)
1695	f 29,50	
1698	f 31,-	
1699	f 20,-	(for 4 ships with tar)
1700	f 18,-	(for 3 ships with tar) and f 18,50 (for 2 ships with tar)

This list shows a changing picture. The freight-prices were influenced by the risks of piracy and the conditions of war. The freight-price per last of tar (one of the heavy goods) was the lowest compared to other merchandise.

#### Freight-prices to Archangel

It was interesting to find out some more about the freight-price for merchandise that was shipped to Archangel. In a great number of charter-parties it was stipulated that merchandise or cash (silver-coin) was to be taken along. Some-times there is an indication that the freight-price was higher because of this. In a few cases it is mentioned that the skipper could not take passengers or goods for others without the freighter's consent who thus protected his interests. In other cases the skipper was free to do so. The skipper that sailed at the ship-owner's risk without a contract of any kind would of course try to get a cargo for Archangel. Merchants and private parties wanting to ship one or more lasts of goods to Archangel could always find a ship. In an affidavit of November 20, 1647, some merchants that were trading to Russia declare that in the summer of that year the usual freight-price to Archangel was f 5,50 or f 6,- a last. Passengers did not have to pay freight for their luggage like a bed, chest and small articles that had to be stowed under the deck. The above merchants declared that they had shipped goods or had done so for others at this price 32). In 1670 an agreement was made about the freight-price of certain goods (non Russian goods) going to and/or coming from Archangel. 33).

#### Shipping to Lapland

In the sixteenth century, before Archangel was made a centre of trade, the relations of the Southern and Northern Netherlands with Northern Russia were mainly confined to Lapland. Denmark, Sweden and Russia made claims on this contested area. When ships were sailing to and about the coast of Lapland without paying toll, the Danish king felt compelled to take steps because the proceeds of the Jutland Sound dropped 34). The governor of the castle of Vardøhus received assistance from Danish men-of-war to seize ships that tried to ignore the Danish toll-rights. In 1583 the English made a treaty with the Danish king, followed by the French. Others, among

whom the Dutch, did not do so. In 1582 two ships that had been chartered by Antwerp merchants to go to the coast of Lapland were seized by a Danish warship near Sem'Ostrov (seven islands). These merchants then authorized their agents David and Simon van Salingen, Olivier Brunel and Bernard van de Zande to release their goods. The well-known Van Salingen was also share-holder in the company. One of these ships called the "Fortuyn" of the Amsterdam skipper Claes Jenssen, had been chartered in Amsterdam and had sailed from there. The excuse offered was that they were unaware of the prohibition of the Danish king. They argued that they were in no way associated with Jacob van de Walle or his company who had been aware of this 35). One had to obtain an expensive pass from the Danish king if one wanted to sail to Lapland.

In his study Ahvenainen compared the number of passes issued to the number of charter-parties at the end of the sixteenth century and came to the conclusion that they more or less tallied. The freighter had to take care of this pass. The Danish king's representative in Holland, also called herault, intermediated in this.

The costs were about f 3,- a last and f 24,- for the ship. The number of lasts given was usually 30 to 40% less than the real number 36). Later a pass valid for more than one year came into use. In 1634 Isaack Bevelot authorizes Johan Letten to make use of a pass that had been issued by the king of Denmark for a period of six years and that permitted a ship of 100 lasts to sail to and trade in the "streams belonging to the Norwegian crown" under Lapland up to Russia 37).

Only ships sailing to Lapland were usually provided with such a pass. In the seventeenth century there were more problems. I have to confine myself to certain aspects of shipping and trade. In the period that is discussed here, some merchants had settlements in Kola that was then in Russian hands. The ships that sailed to Lapland were called Kola-ships ("Koolvaarders"). In the charter-parties it is mentioned that ships went to Lapland for the fishery. The expression "for the fishery" does not mean that any fishing was done 38). From the person who had the local fishery-rights fish was bought that was supplied by the fishers. Exported was: usually salmon, but also salted cod and sometimes stockfish, train-oil and Muscovian glass (that was found in mountains). Just as it was customary in shipping to Archangel, ships sailing to Lapland would have a mate on board at the freighter's expense, who was to give instructions in stowing and loading and who checked the cargo.

The skipper carried a free-pass of the Danish king. It is customary that merchants, agents, coopers and sometimes also sailors came along as passengers, enjoying free passage and board 39). As on the Archangel route the crew often had to assist in bringing people and goods to and from the shore and the ware-houses. Another condition sometimes is that the crew is to assist in gutting and salting the fish. Sometimes it is stipulated that among the crew there had to be one who has sailed on a cod-fisher and can gut fish 40). Also the ship's carpenter had a special assignment. He was to repair the boat of the freighter or the agents that was used in loading and unloading the fish in Kola and make it fit for the fishery 41).

Another condition is that besides his portage the skipper was not allowed to carry anything for himself or anyone else, whether letters, diamonds or passengers, without the agent's or freighter's consent, conditions that were also made in charter-parties to Archangel. Sailing on the fishery one sailed from one harbour to the other along the coast, such as Sem-Ostrov, Kildin (Kilduyn), Jokanga (Yukanski islands, Jochona), Ponoj (Penoj), Cape Njemetski (Kegor), Uma (Ombay), Poluostrov Rybacy (Fisher's Peninsula), Porjaguba (Porja bay). It was quite a long journey. The ships would usually sail along the coasts and harbours of Lapland for three months. Goods and silver-coin were also sent to Kola from Amsterdam. Most ships that were chartered for Lapland had to touch at Archangel to unload part of the cargo and return to Kola to load the last cargo and from there they sailed to their home-port.

The salmon that was caught in Lapland "smelled good and lovely and was reddish in colour" 42). In those days salmon was a good export article for Russia and by ways of the entrepot-market (staple-market) also for Amsterdam. The salmon, that was loaded into other ships in Archangel often came from Lapland. The freight-prices of ships that sailed to Lapland (Kola is usually mentioned) are rather diverse. The

ships that went to or came from Archangel and touched at Kola in passing, should not be taken into account. These belong to the ships that sailed to Archangel.

Per year there are too few charter-parties to make a computation of an average cargo-capacity or an average freight-price useful. To give some insight into this matter some data were collected. This survey below concerns ships that sailed to Lapland and stayed on the coast of Lapland for a considerable period of time and then sometimes paid a short visit to Archangel to sail back by ways of a harbour in Lapland. Where Amsterdam is given as a harbour of choice, the freight-price per last for the other harbour is also given.

1596	Ship of 85 lasts, crew of 14 and a free mate and armed with 6 iron pieces, with a lay-time of three months (not reckoning the sailing days from one harbour to the other). Freight-price f 28,- a last (£ 1.6.11 a ton) 43).
1597	90 lasts f 28,- 44).
1598	f 26,- and f 24,- 45)
1599	f 26,- and f 22,- 46)
1601	f 23,50 (to Le Havre, Dieppe or Calais f 30,-) 47)
1602	f 26,25 (to Embden f 28,-) 48)
1603	f 27,- and f 30,75 49)
1605	f 24,- (to Hamburg f 25,50) 50)
1606	f 28,50, f 22,50 and f 25,- (Hamburg or Bremen f 26,25) 51)
1607	f 29,- (Hamburg or Bremen f 30,-), f 25,50
1608	f 33,- and f 33,50
1609	f 22,- and f 25,25 (lower freight-price, truce with Spain till 1621)
1610	f 19,- and f 20,-
1611	f 20,-, f 19,50
1612	f 21,50, f 23,-
1613	f 22,50
1615	f 19,-, f 23,50
1617	f 22,-
1618	f 26,50
1619	f 26,50
1620	f 24,-, f 25,-
1621	f 24,-, f 26,-, f 29,- (end of truce with Spain, has no influence on freight-prices).
1622	f 26,25 (also from Hamburg)
1623	f 20,-, f 26,-
1624	f 19,-, f 20,-, f 21,50
1625	f 16,50, f 17,50
1626	f 17,50, f 19,50 (Hamburg f 21,-), f 20,- (Hamburg f 21,50) 52)
1627	f 20,- (only coast of Lapland, f 22,50 if also to Archangel) 53)
1628	f 28,-, f 23,25
1630	f 32,-

1631	f 26,25, f 30,50
1632	f 25,-
1633	f 22,-
1634	f 26,50, f 27,50
1636	f 23,-
1637	f 29,50, f 27,50
1638	f 28,-, f 29,-
1639	f 30,-
1642	f 25,-
1644	f 29,-
1645	f 32,50, f 29,-
1648	f 22,25 (peace with Spain)
1650	f 22,-, f 25,-, f 25,50, f 27,-
1651	f 25,-
1652	f 19,-, f 24,-, f 25,-
1657	f 20,50
1658	f 18,50
1660	f 23,-
1661	f 22,-, f 23,-, f 26,-
1662	f 22,50, f 24,-
1663	f 24,75 (also to Archangel f 28,-), f 22,-
1666	f 50,-
1698	f 5,50 per month (f 24,75 for 4½ months)

John Chadsley, Englishman from Hull, regularly chartered ships for Lapland from 1612 onwards. These ships returned to Hull to unload there. In Hull the skipper received part of the freight-price. The rest was paid two or three months later for which Chadsley had to stand surety. A rate of exchange of 2 shilling = 1 guilder was used. A couple of times Chadsley borrowed money on bottomry. 54)

#### Charter-parties from Amsterdam via Archangel to other harbours

A number of ships that sailed from Amsterdam to Archangel did not return to Amsterdam to unload. Amsterdam was sometimes mentioned as one of possible places of discharge. When this is the case it is possible to compare the freight-price to different harbours. Almost all skippers that are mentioned in the 2100 charter-parties are Dutch. In the period 1594-1700 55 % of the skippers came from the province of North-Holland, 21 % from Friesland and 15 % from the islands Texel, Vlieland and Terschelling. If Amsterdam was one of the harbours of choice, the skipper will usually have preferred to discharge there if the freight-price remained the same. If he had to unload in one of the other harbours his chances of being chartered again within a short period of time were probably not very big. When the ship arrived in Amsterdam the larger part of the crew could be discharged quickly, which will have been important if the ship arrived late in the season with a crew that was eager to be home. Looking at the higher prices we should take these factors into account. Every extra day that the skipper would have to hire his crew would cost his company money. That is why extra lay-days had to be paid extra.

In 1634 Amsterdam merchants declare at the request of a member of the council of the city of Bremen, that a charter from the Vlie or Texel to Archangel and back was as expensive as a charter Bremen-Archangel-Bremen. It was easier to find a ship in Amsterdam than in Bremen (20 : 1) and therefore a charter Amsterdam-Archangel-Amsterdam was to be preferred. The insurance premiums were the same, 3½%. The merchants declare that in 1631 the freight-price fluctuated between f 21,- and f 26,50 a last 55).

Richard Barne and John Harvard acting as "merchants of the English nation in the name of the Muscovy Company in London" ("Coopluyden van de Engelsche natie uitten name van den Compagnie van Moscovien residerende te Lonnen daer vooren de rato caverende") chartered two ships in Amsterdam with a cargo capacity of 70 and 100 lasts on April 8 and 9, 1598 56). The route was: load cargo in Amsterdam, sail to Archangel, where an agent or proxy of the said company will unload and reload the ship within a lay-time of 40 days, back to Amsterdam or London and unload there. The ship of 70 lasts was armed with 6 iron guns, 6 stone guns, fire-arms etc. The crew consisted of 13 men and a mate who was to be paid by the freighters. There would be an agent on board who would enjoy free passage and board. The ship of 100 lasts was similarly armed and had a crew of 14 with a mate and his servant who would be paid by the freighters (free mate). A merchant and one employee would come along enjoying free passage and board.

For both ships the freight-price was f 28,- a last (£ 1.7.8 a ton) when unloaded in Amsterdam and f 33,- a last (£ 1.12.8 a ton) in London. Both skippers received a flag as a gratuity. The freight-prices were rather high but not higher than of other charters of that year. After May 12, 1598 the prices dropped. Some ships were then chartered at f 20,- to f 24,- a last. In 1596, 1597 and 1599 we do not find such high freight-prices of f 27,- to f 28,- a last, bar a single exception of f 27,- a last. In 1594 and 1595 the freight-price was higher, viz f 29,- to f 30,- a last.

It is open to doubt whether Richard Barne (who is called Ritzert Berens in two charter-parties but who clearly signed Richard Barne) was really acting in the name of the Russia Company in London. Willan 57) says of him: "Thus in an undated document, which probably belongs to 1597, the Russia Company complained that one of its servants, Richard Barne, who had been recalled from Russia 'with enterlopers'. He had subsequently gone to Russia again, where he intended 'to joyn stock with interlopers'. Barne was governor of the Russia Company in 1580, 1583, 1591 and 1592 and chief agent of the Russia Company in Russia in 1600 and 1602 58). I suppose that Barne and Harvard chartered these two ships as interlopers under the flag and privileges of the Russia Company.

On May 17, 1600 the Amsterdam merchant Dirck Wouters, who traded to Russia chartered a ship of 85 lasts, armed with 5 to 6 iron pieces and with a crew of 12 plus a free mate, to sail to Archangel with a cargo of goods. It was to be unloaded and reloaded there within six weeks, after which the ship was to return to Amsterdam, Hamburg or London depending upon the orders of the merchant's agent. The freight-price to Amsterdam or Hamburg is f 20,- a last (£ 0.19.2 a ton) and to London f 23,50 a last (£ 1.2.6 a ton).

In 1601 Sion Lus from Amsterdam, freights a ship of 70 lasts for Archangel. On the return voyage the skipper will hear in Texel where he is to unload. If in Amsterdam the freight-price is f 26,- and if it is London, Le Havre, Dieppe or Rouen it is f 31,50 a last 59).

In 1602 he freights a ship at a price of f 22,- a last when it is unloaded in Amsterdam and f 25,- a last when it is unloaded in Le Havre 60). In 1604 Marcus de Vogelaer freights a ship at the following prices: Amsterdam f 18,-, Hamburg f 19,-, Leghorn f 37,- a last 61). Also in 1604 Sion Lus has to pay f 17,- a last for Amsterdam, f 18,- for Hamburg and f 34,50 a last for Leghorn 62). Another ship freighted by Lus in the same year has the same price for Amsterdam, Bremen or Hamburg, viz. f 21,75 a last 63). For a ship that was chartered in June 1604 the freight-price is f 22,50 for Amsterdam or Hamburg, f 27,50 for London and f 25,- for Le Havre 64). For the ship that is freighted by Hans van Keerbergen in 1605 the price per last is f 27,50 for

Amsterdam or Hamburg, f 31,25 for London and f 30,- for Le Havre 65).

In 1606 f 20,- is asked for Amsterdam, f 21,- for Hamburg and f 40,- for Leghorn 66). For a ship that was freighted in 1607 the prices are: f 27,- for Amsterdam, f 29,50 for Hamburg and f 31,50 a last for Le Havre 67). In 1607 and 1608 the price per last to Hamburg is generally f 1,50 higher than to Amsterdam.

Of the ship the "Vliegende Leeuw" that was chartered in 1610 the price per last is f 22,- for Amsterdam and f 27,- for Lisbon or S. Lucar 68). For the ship that was freighted in 1625 by Arnout van Liebergen the price per last is f 32,- in Rouen and f 37,50 in Bayonne de France or Le Havre 69). After 1628 the difference in price between Amsterdam and Hamburg is bigger, viz. f 3,- a last. In 1629 this was f 1,- or f 1,50 a last. In 1630 the price for Amsterdam was f 25,- and for Hamburg or London f 29,- a last. In three charter-parties of July 1630 the difference in price between Amsterdam and Hamburg was f 6,- a last 70).

1629 Shows the difference: Amsterdam f 33,50, Bremen f 35,50. A ship that was freighted with six horses for Archangel, that had to be unloaded there and reloaded with rye had to pay f 28,- in Amsterdam and f 32,50 in Bremen. For a ship of 110 lasts the prices of that year were: Amsterdam f 26,-, Hamburg f 31,- and London f 39,- a last. For another ship: Amsterdam f 26,50 and London f 34,-, Another charter-party of that year shows a smaller difference: Amsterdam or Göttenborg f 25,- and Hamburg or Bremen f 28,- a last 71).

Among the great number of charter-parties of 1631 (when great quantities of rye had to be taken from Archangel, with a lay-time of one month or three weeks in Archangel) there are a number of contracts that mention as places of discharge Amsterdam, Hamburg or London. For a ship of 155 lasts (armed with 5 iron pieces and a crew of 11) the price was respectively f 30,-, f 35,- and f 39,-. For two other ships (one of 155 lasts, 14 iron pieces, a crew of 24 and one of 110 lasts, 8 iron pieces and a crew of 18) prices were respectively f 30,-, f 35,- and f 39,- a last 72). The higher price is clearly due to the number of guns.

For four other ships that were chartered in May 1631 with Amsterdam or Hamburg as place of choice the freight-prices were respectively f 27,- and f 32,-, f 23,- and f 28,-, f 27,- and f 32,- and f 26,- and f 31,- a last 73). Freighters were the merchants Abraham van Eschwiler and Arent Schuyt. All these ships were rye-ships.

Some other ships from Archangel were directly freighted to another harbour. Crijn Crijnsz. Hooft, merchant and burgher of Bergen (Norway) freighted himself or through his relative Pieter Willemsz. Hooft (merchant of Amsterdam) ships to Bergen, Glückstadt or Copenhagen 74).

In 1633 the difference in the price between Amsterdam and Hamburg was f 4,- 75). Another contract of that year gives Amsterdam f 21,- per delivered Amsterdam last and when discharged on the Eems, Weser or Elbe f 26,- 76). There are various reasons why it is impossible to compare the prices in later charter-parties.

#### Shipping to Italy

From the end of the sixteenth century onwards ships were freighted to the Italian harbours of Leghorn, Genua and Venice. The journey went from Amsterdam to Archangel and from there directly to Italy, though sometimes a stop was made at Cadiz. Russian leather and caviar were the favourite articles of export. Contemporary writers say that the Russians were skilled in dyeing leather and giving it a scent that would not wear off. This could not be imitated.

The ships that sailed from Amsterdam to Archangel and Italy were also called "caviar-ships". A condition that is sometimes mentioned in the charter-parties is that a number of lasts of caviar is to be carried as ballast, which meant that no freight had to be paid. Ships sailing to Italy were quite heavily armed. This was required by the regulation of "Straights-shipping" for ships that passed through the Mediterranean 77). In June 1594 Isaac le Maire and company send a ship from Archangel of 75 lasts, armed with 10 iron pieces and a crew of 18. This ship was to sail either to Amsterdam

(freight-price f32,75 a last) or to Venice around England (unloading and loading within two months) and back to Amsterdam. The freight-price of f 130,- a last can of course not be compared to other prices 78).

In this chapter further only ships are given of which the freight-price per last to an Italian harbour is known or could be computed. In 1596 the freight-price of a ship from Archangel to Genua and/or Leghorn is f 60,- to be paid in reals of eight at 45 stivers (= f 2,25) a real 79). In 1597 it was f 43,- for Venice and in case the ship returned to Amsterdam with a cargo f 56,- a last 80). In these years most ship reload in Italy or Marseille and return to Amsterdam.

- In 1601: Leghorn f 39,- for a ship that was to unload part of its cargo there and the rest in Venice at f 55,- a last 81).  
The higher prices in Venice are often due to the fact that also other harbours were visited.
- In 1602: Leghorn resp. f 56,50, f 43,-, f 50,- and f 45,50 (Venice then f 56,- 82).  
In 1603: Leghorn resp. f 45,- and f 41,- and Venice f 55,- and f 49,-.  
Another ship Leghorn or Genua f 39,50, Venice (via Ancona) f 50,- and only Venice f 46,- 83).
- In 1604: Venice resp. f 46,- and f 44,75 84)  
In 1605: Leghorn resp. f 35,- and f 38,50, Venice f 43,75 and f 43,- 85)  
In 1607: Leghorn f 40,- 86)  
In 1608: Leghorn f 50,-, via Leghorn to Venice f 60,-, but directly to Venice f 55,- 87)
- In 1611: Venice f 50,- 88)  
In 1612: Leghorn f 51,-, Venice f 68,- 89)  
In 1624: Amsterdam f 20,75, going to Venice f 49,-. Another ship: Leghorn f 40,-, going to Venice f 48,- 90)
- In 1626: Amsterdam f 26,-, Leghorn f 58,- and Venice f 72,- 91)  
In 1630: Amsterdam f 37,-, Leghorn f 69,- and Venice f 77,- 92)  
In 1634: Amsterdam f 24,-, Leghorn f 49,-, Genua and Leghorn f 53,50  
In 1642: Genua and Leghorn f 50,- 93)  
In 1656: Genua or Leghorn f 61,- 94)  
In 1657: Leghorn resp. f 62,50 and f 62,-  
In 1658: Leghorn f 65,-, Venice f 75,- 95)  
In 1659: Leghorn f 68,-  
In 1662: Leghorn f 69,-  
In 1663: Leghorn f 69,-  
In 1664: Leghorn f 70,-, Venice f 90,-  
In 1666: Leghorn resp. f 110,- and f 120,-  
In 1667: Leghorn f 120,-  
In 1668: Leghorn f 105,-

From 1674-1677 goods for Italy are exclusively shipped by English ships. The English skipper took care of a pass with all its privileges. Sometimes the ship sails to Yarmouth by ways of Amsterdam to take in supplies, then to Archangel and from there to Italy. The freight-price to Leghorn is then about f 100,- a last 96).

In the years after 1677 there are again Dutch ships sailing to Italy.

- In 1678: Leghorn f 98,- and f 115,- 97)  
In 1679: Leghorn f 100,- 98)  
In 1680: Leghorn f 100,-, Venice f 120,- 99)  
In 1681: Leghorn f 100,- 100)  
In 1684 and 1686: Leghorn f 100,- 101)  
In 1687 and 1688: Leghorn f 75,- 102)  
In 1697: Leghorn f 120,- to f 150,- 103)  
In 1699: Leghorn 106 2/3 guilders 104), f 106,70

Goods shipped to Italy were then mainly Russian leather, tallow, wax and caviar. In paying the freight-price of ships that were chartered for Marseille, Genua,

Leghorn, Naples, Venice etc. the freight-price of which was given in guilders, the current rate of exchange of the place of discharge to Amsterdam was used 105).

If we take a comprehensive view of the history of our trade and shipping in the seventeenth century, it appears that our knowledge of this field with its international aspects, is quite insufficient. This is certainly not only true for trade and shipping to Italy but also for almost every area in this internationally important branch of economic history 106).

#### General cargoes

Little can be said of the ships that sailed entirely at the risk of the shipowners, also called "general cargo carriers". When a ship that was to call at Archangel in its way from the coast of Lapland did not appear, this caused problems in Archangel in August 1639. Some skippers were found willing to carry a few lasts extra at a high price. They may have seen this as a captain's bonus. I suppose that they did this on the sly. The freight-price they demanded for a few lasts was as high as f 60,-, f 75,-, f 80,-, f 85,- or f 90,- a last 107). It is clear that the general cargo carriers were not available. These of course always had to ask a higher freight-price. All expenses that were normally paid by the freighter such as harbour-, anchorage- and lightening-fees were for their own account. In 1652 there is a complaint that the general cargo carriers are not expected in Archangel 108). An agreement was made in 1670 to regulate the freight-prices of general cargoes.

In 1686 and 1687 contracts were made between skippers, brokers and shipbrokers in Amsterdam fixing the freight-prices of a number of general cargoes to Italy (Russian leather among others), Alicante and Smyrna 109).

#### Duration of the journey

Seven ships, well armed and with a rich cargo, sailed from Texel in the company of two convoy-ships in 1625. One of these convoy-ships was to make the whole journey to and from Archangel. In Russia this ship would stay 80 miles from the coast. This fleet arrived from Texel in Archangel in 22 days 110).

In 1661 twenty-two prominent merchants who traded to Russia, declare that there are several instances in which the journey from Texel to Archangel took 16 to 20 days. A journey of four weeks or a few days more or less was normal and is called an "ordinary" journey. After 1652 it became customary that the last fleet left Archangel on October 4 or 6 and some ships would even leave after this date. As a result of this several ships left for Archangel at the end of August to return with their cargo in the same year 111).

In 1661 several skippers make an affidavit from which their late departure appears, in 1652 for Archangel on August 30, return to Texel on November 17; 1653 departure on August 12, arrival in Texel on November 29; 1656 departure on August 20, return on November 2; 1657 departure August 26, return November 22; 1658 departure August 29, return November 5; 1659 departure August 16, return November; 1660 three ships depart on August 29 and return on November 6 112). Brokers declare that this affidavit agrees with their experiences 113).

In 1666 a skipper declares that he left from Texel on September 7 of that year and arrived in Archangel on October 3, which he left with his cargo on October 15 and that he arrived in the Vlie on December 1. He also declares that on October 16 two ships from Hamburg arrived at Archangel which had left Hamburg on September 9. Another skipper declares that he left on September 7 and arrived at Archangel on October 6, there he unloaded and reloaded and left again on October 19 and arrived in the Vlie on December 6 and in Amsterdam on December 15. He also declares that when he was in the Vlie with his ship before sailing to Archangel, the English burnt a great number of ships in the Vlie. A third skipper declares that he left from Texel on September 9 and arrived before the river of Archangel on October 6 and in Archangel on October 12; having unloaded and reloaded he left Archangel on October 20 and got outside

the river there on October 22, he sailed off on October 26 and arrived in the Vlie on December 7 and in Amsterdam on December 19. Some merchants affirm these affidavits and one of them declares that he chartered the last mentioned ship on September 1 114). The second English war must have been a reason for ships to leave so late in the year. Amsterdam merchants who traded to Russia, declare in 1668 that in that year a fleet of 14 to 15 ships left on August 15 and stayed in Archangel for a considerable period of time during the market there. Most of the ships sailed back again on October 18 and 20 and four on October 24. All returned safely 115). In 1668 almost all Dutch ships left Archangel with the fleet on October 10 and joined a convoy-ship at sea on October 12 116).

There was of course a reason for these late departures. The market in Archangel closed in August. The toll-office was practically closed after that time and did little business. Ships that arrived late could profit from this. When the date of the year-market was moved to a later date other problems arose. Ships that wanted or had to leave Archangel late in the year ran the risk of having to spend the winter there. In 1668 seven ships got stuck in the ice four miles from Archangel 117). In 1679 a placate was issued in Amsterdam saying that ships should have left the river in Archangel after September 1, but this was withdrawn in 1686 118). Later the early fleet left Texel at the end of May and the large fleet at the end of July.

#### Lay-days

A lay-time of one month was normal for Archangel but there are quite often variations of 14 to 60 days. In the initial period (from 1594) it was often stipulated that the ship had to remain in Archangel until September 10. If the number of lay-days is stipulated in the charter-party one usually allowed three to six days more or less. In Amsterdam the discharge-time was 14 to 20 days. If the lay-time is longer than stipulated, the extra lay-days had to be paid. The amount to be paid was usually left to the decision of an arbitrator. It is also often stipulated that an arbitrator is to be consulted in case of disagreement about the freight-price. In other contracts the sum to be paid for extra lay-days was given and ran from 14, 20 to 50 guilders a day, depending on the ship's cargo capacity and crew 119). The arbitrator's decision about the freight-price was binding when the ship had to winter in Archangel. Sometimes it is stipulated in the charter-party how much higher the price per last would be if the ship had to winter. A ship of 80 lasts, freight-price f 20,- a last, that was chartered on July 18, 1602, will be f 5,- a last more in that case. For a ship that was chartered in 1661 the freight-price would be about 30% higher if it had to winter 120).

In some contracts it was stipulated that if the ship left in advance of the fleet and therefore had fewer lay-days, the freight-price would be less 121). The fleet that arrived in Archangel in September 1695 and left in convoy on October 18, quickly became ice-bound and remained in that condition until May 23, 1696 and did not arrive in Amsterdam before the end of August with a considerably damaged cargo 2). Of a group of Dutch ships that left Archangel in 1668, seven got ice-bound in the river four miles from Archangel and had to winter there. The agents that were aboard those ships had to use ice-sledges to return to the Netherlands 123).

#### Crews

For many ships and their crews the lay-time in Archangel and the coast of Lapland would sometimes last two or three months. The crew had to row the ship's boat or the boat of the merchant to and from shore. They were also employed in storing the goods in warehouses and bringing goods on board 124). They have to help in getting fire-wood and assist the cook in getting it on board 125). The fire-wood was used as dunnage, but often one, two or more fathoms of fire-wood were for the skipper or the freighter. This stipulation often appears in the contract

The crew had to take special care of the freighter's goods and render assistance in case of fire or other calamities 126). This was always stipulated after the fire of Archangel of 1619 but also sometimes before that year. Archangel with its wooden houses saw many fires, sometimes very large ones.

In an affidavit of 1617 made by a crew to the benefit of their skipper they say something about their food. When they were in Archangel the crew had soft bread that was bought there by the skipper. If there was no soft bread left when they departed, the crew would have to eat hard bread or ship-biscuit. The skipper had bought sheep in Archangel and treated the crew to a stew of fresh meat and turnip on Sundays. The skipper further bought two oxen there. When they had been there for six or seven weeks the first ox had been slaughtered and the second around the time of their departure from Archangel. The skipper had bought three oxen for himself and for the ship four casks of tar and pitch and a cask of train-oil that was to be used as fuel for the lamps. The skipper bought one fathom of fire-wood from the Russians and five or six bundles of hoops to refirm the casks. During their stay in Archangel he bought fresh salmon for the crew 127).

It was often expressly stipulated that the crew was not allowed to sell small quantities of beer, brandy or other alcoholic drinks 128). It was also forbidden to sell tobacco 129). Such a prohibition does not mean that these activities to earn a little extra did not take place. The crew was not allowed to bring wine or brandy to the coast of Lapland. When at their return in Archangel in 1619 the crew discovered that their wine and brandy which they had left behind there was lost in the fire, they refused to do all sorts of jobs 130).

#### Skipper and mate

According to the charter-parties the skipper is to take care of the merchant's goods as if they were his own. He was mostly also responsible for the stowing of the cargo. Most of the contracts have a stipulation that he will be assisted by a mate who is to be paid by the freighter and will enjoy free passage and board. This does not mean that the skipper had little or no knowledge of the waters around Archangel and Lapland. It is possible that such a free mate was sent along on the first journeys to Northern Russia and that this became customary later. In a few cases one finds the stipulation that the mate will receive and stow the goods in the name of the merchant 131). When the skipper was loading grain, the mate had to "tick" the amounts 132). If more than one merchant loaded goods in the ship, the skipper had to sign the bills of lading 133).

The skipper is not responsible for dampness of the cargo or heating if heating is caused by a cargo of masts and affects other goods 134). The skipper is responsible for correct stowage and ballasting 135). In a charter-party the skipper may be ordered to fire a salute. In 1628 he has to fire every gun on the birthday of the Czar 136). In 1616 on Emperor's Day all ships have to fire their guns and also in 1618 in honour of the Czar's daughter.

#### Captain's gratuities

The bonus or gratuity that the skipper will receive is not always mentioned in the charter-parties. This is often left to the "discretion" of the freighter and is often to be settled at the ship's return. A new flag is sometimes given in guilders and can be worth 60, 40, 24 etc. guilders 137). In a few instances he receives this at his departure. The red flag requested by skipper Cornelis Joosten, from Zierikzee (ship of 130 lasts, 16 iron guns, crew of 20) is rather odd. Joosten also got f 60,- 138). Another skipper was more interested in a white flag 139). Fixed sums of money of various sizes are often mentioned 140).

After 1653 a gratuity of f 50,- is often mentioned 141). Other gratuities are a silver cup of f 40,-, a new hat of different value, a cloth for a coat, a fur jacket of f 60,-, a fur coat and a jacket for the skipper's wife, a plastron for his wife 142).

## Portage

With portage is meant the small quantity of goods that the skipper, his mate and crew could load for their own account free of freight. It is often mentioned in the contracts, particularly the crew's portage. In 1594 the skipper of a ship destined for Italy could load three to four tons for himself, the members of the crew each one ton; 1597 the skipper and mate of a ship going to Lapland could load 8 casks of tar and 6 casks of salmon. One last for the skipper and half a last for the mate is often mentioned. In another instance the skipper and mate can both load half a ton and one fathom of fire-wood. In 1604 a skipper gets half a last and the crew as much as they can load in their "harness-casks" (harnas-tonnen). In 1652 it is three lasts for the skipper and the crew. After 1684 it is regularly stipulated that the skipper has a portage of three lasts and the mate one of a last 143).

In other contracts it says that when the ship cannot be fully loaded, the full freight-price will be paid, provided that the skipper will bring two fathoms of fire-wood for the freighter 144). The skipper buys the fire-wood that is often needed for the stowage of the ship at the freighter's expense and this wood is divided between him and the freighter after his return. If rye and other goods are loaded this wood is sometimes called "shifting boards and dunnage boards" (gevendeelen en garnierinckdeelen) 145).

## Armament

When there are no precise regulations, it is difficult to see any relation between the number of guns and the size of the crew. This is true for the route Amsterdam-Northern Russia-Amsterdam. Small ships sometimes have a considerable number of guns on board. A ship of 55 lasts sailed in May 1594 armed with 8 iron pieces and 4 stone guns and a crew of 17. In 1595 there was a ship of 70 lasts, armed with 10 iron guns and 4 stone guns and with a crew of 12 plus two boys, and two ships of 1598 carry 6 iron pieces with a crew of 12 and 13.

If we take the ships with a cargo capacity of 140 lasts of which we know the number of iron pieces and crew, we get the following list for the period 1603-1638:

1600	15 men	6 iron pieces	1628	19 men	14 iron pieces
1602	15 "	6 "	1629	20 "	14 "
1603	17 "	8 "	"	16 "	10 "
1613	21 "	12 "	"	11 "	6 "
1615	11 "	10 "	"	18 "	12 "
1618	15 "	8 "	1630	13 "	6 "
1622	16 "	12 "	"	12 "	6 "
1623	16 "	12 "	1635	14 "	10 "
1624	17 "	8 "	1637	18 "	14 "
"	18 "	10 "	1638	24 "	18 "

The greater number of ships was unarmed and usually had a smaller crew on board, e.g. in 1619 a ship with a crew of 12; in 1636 a ship of 160 lasts had a crew of 12 and six armed pieces. The following list concerns ships of 100 lasts in the period 1595-1633:

1595	19 men	10 iron pieces	1616	14 men	10 iron pieces
1597	15 "	6 "	1617	15 "	12 "
1598	15 "	6 "	1618	13 "	10 "
1599	13 "	6 "	1621	11 "	8 "
1600	11 "	6 "	1626	14 "	8 "
1600	13 "	4 "	"	12 "	6 "
1613	13 "	6 "	1630	15 "	10 "
1615	12 "	12 "	1630	15 "	8 "
"	13 "	6 "	1633	12 "	6 "
1616	17 "	9 "	"	16 "	12 "

The size of crews of unarmed ships of 100 lasts was: in 1615 a crew of 11, in 1617 of 9 and 10, in 1618 of 9, in 1620 of 8 and 9, in 1623 two of 10, in 1625 of 13, in 1626 of 9 and in 1634 of 9.

The great number of guns that we find on this route may be due to the fact that ships that also sailed to e.g. the Levant, kept their guns on board when they sailed on less dangerous journeys.

When we take a comprehensive view of the great number of charter-parties of the year 1631 and 1632 and take into account the upward and downward tendency of the shipping-market per year, viz. the downward tendency of 1632 as against 1631, our first conclusion is that compared to unarmed ships, the freight-price of a ship with 10 or more iron guns is two to four guilders a last higher and of a ship with 6 iron guns one to two guilders a last higher 146). In other years the difference in price is even greater and sometimes there is no difference at all. In a few instances it is mentioned in the charter-party that the freight-price will be higher if the ship is armed. 147).

The fact that the ships sailed in convoy made heavy armament unnecessary. Sometimes the task of providing convoy of the Admiralty was a heavy one. In the forties of the seventeenth century the number of merchant vessels must have increased considerably 148).

## Bottomry

In the notarial archives one regularly finds bottomry-contracts. Also of the sixteenth century. One must abandon the idea that money was only lent on bottomry to skippers who needed cash for ship's repairs or victuals. One likes to see a skipper do this in a strange harbour.

Bottomry has become an I.O.U. in which the creditor of a bottomry-bond takes the risks and money can be lent on bottomry on the ship and its cargo. In calculating his premium the bottomry holder will have to take into account his loss of interest, the insurance premium and other risks. The debtor of a bottomry bond has to repay the amount of money borrowed plus the premium one week or fourteen days after the ship has arrived at the place where the contract ends.

Bottomry bonds were signed by merchants who had a shortage of ready money and of course by skippers.

Here follow some notes on bottomry, first of all of the route Amsterdam-Archangel-Amsterdam:

1602 May	premium 16 %	G.A.A., N.A. 92/121 v.
1603 May	" 16 %	" N.A. 94/189 (only for the outward journey)
1606 May	" 6½%	" N.A. 195/18 (f 2200,- of merchandise)
1617 June	" 15 %	" N.A. 434/112 v.
1621 July	" 15 %	f 3000,- of cloth, N.A. 166/133 v.
1622 June	" 15 %	" 2400,- of cloth, N.A. 737/77 v.
1622 June	" 16 %	" 1200,- of cloth, N.A. 646 A/136
1623 June 16	" 15 %	" 1200,- of cloth, N.A. 717
1624 June	" 15 %	" 3600,- of cloth, N.A. 741/148
1626 June	" 5 %	a month, f 600,- on ship, N.A. 228/151
1641 June	" 16 %	f 700,- on ship, N.A. 1568/221
1645 June 24	" 20 %	" 600,- on ship, N.A. 690
1645 July	" 11 %	only for Archangel-Amsterdam, N.A. 1573 A/411
1657 June	" 16 %	N.A. 1121/291 v.
1662 June	" 15 %	N.A. 2212 B/1142
1662 Aug. 9	" 15 %	N.A. 907
1663	" 15 %	N.A. 2214 B/1087, N.A. 2215 A/47
1668 June	" 15 %	N.A. 2227/543
1669 June	" 15 %	N.A. 2230/623
1672 Aug.	" 26 %	N.A. 2239/1005
1683 July	" 11½%	f 10.000,- and f 5500,- of cloth and back, N.A. 4962/79, 84

Route Amsterdam-Kola-Archangel-Amsterdam:

1598 April	premium 30 %	f 1500,-, N.A. 79/170
1617 April	" 16 %	" 300,-, N.A. 147/133
1626 June	" 5 % a month,	N.A. 229/148
1648 July	" 32 %	f 200,- for the mate and back to Amsterdam, N.A. 3819/679

And finally in June 1680 premium 30% for route Amsterdam-Archangel-Cadiz-Amsterdam. N.A. 3797 B/727. It was not customary to pass a bottomry bond before a notary, the signature of the debtor was sufficient 149). The risk of shipping to Archangel must have been considered higher for the premium for the route Amsterdam-Spitsbergen-(Svalbard) -Amsterdam was 13% in 1662 150).

Marine insurance 151)

It was customary to insure goods that were sent to and from Archangel or Lapland. In 1595 the well-known merchant and insurer Roemer Visscher took over a number of insurances from a colleague from Delft who had gone bankrupt. Among these there was an insurance of f 550,- on goods going to Archangel at a premium of 12%. I suppose that this must have been also for the return voyage 152).

In the insurance-agreement of January 1615 the premium for a journey Archangel-Amsterdam or the provinces of North-Holland, Friesland and Zeeland and the river Meuse is fixed at 3½%. The same premium was reckoned for Archangel-Bremen or Hamburg and Emden, for Archangel-Genua or Leghorn it was 8%, Venice 9%, La Rochelle 5½%, Rouen and Le Havre 5%.

Bottomry bonds could also be insured at a premium that was 16 2/3% less than insurance of ships or merchandise 153). The Dutch often sailed on the above mentioned routes.

It appears that according to the Koopmansadviezen concerning the plans for the foundation of an insurance company in 1629, the premium for going to and coming from Archangel was 5 to 5½% during the Twelve Year's Truce. In 1628 this premium was to have been 7½% 154). In 1617 going to and coming from Archangel was insured at 3% 155). In 1631 the premiums for coming from Archangel to Amsterdam, Hamburg and Bremen was 3½% 156). That is the same as in 1615. For a large consignment of hemp, Russian leather and tallow from Archangel to Amsterdam 4% insurance was paid in 1662 157).

The merchants gave the brokers orders to take out an insurance. The brokers were most knowledgeable in this field 158). The route to Archangel had the advantage that in case of ship-wreck in the White Sea, the Norwegian coast or the Dutch islands part of the cargo washed ashore and/or could be salvaged, even at Bear Island (Björwöya) 159). The notarial archives do not offer much as a source for tracing the values of the insurance-premiums. This is usually settled between the broker and the insurers. In a few exceptional cases insurance-premiums are mentioned. For the eighteenth century we can use the archives of the Insurance Chamber.

Merchants

The merchants were the propelling force in the trade with Russia. In this context we must restrict ourselves to the freighters/merchants who appear most often in the notarial charter-parties.

In the initial period 1594-1600 the company of Isaac le Maire, Dirck van Os and Pieter Pulle should be mentioned first. Before coming to Amsterdam they had traded in Antwerp. They appear jointly in twenty charter-parties (exactly one third of the charters). Van Os is also mentioned in two charters with Marcus de Vogelaer. Pulle is apparently the smallest of the three. In 1594 a great number of merchants declare about them that as merchants of good quality, reputation, honour and credit ("wesende cooplyuden van goede qualiteit, reputatie, eer ende crediet"), they traded

extensively with Spain, Portugal, France, Italy, England and the East and West Indies and that they would entrust them with very large sums. The notary adds to this that they did very important business in trade, changing money and insurance 160).

Le Maire was the fore-runner of the Amsterdam overseas traders. He was very active in trade to Spain, Portugal, France and Italy 161). The twenty ships that were chartered by his company on the route Amsterdam-Archangel-Amsterdam had an average cargo capacity of 107 lasts. The six ships that he chartered to go from Amsterdam to Archangel and from there to Italy (Leghorn, Genua and Venice) had an average of 129 lasts. For shipping to Lapland and in particular to Kola his Company used smaller ships with an average of 90 lasts (3 charters). One ship of 120 lasts was chartered to go from Amsterdam to Setubal and from there with salt to Archangel and back with a cargo to Amsterdam. In 1607 he charters another 28 ships with grain and beans (not from Archangel) for Italy but then his appearance in the notarial charter-parties ends abruptly. Although Le Maire's trade with Northern Russia (Archangel and Kola) comprised only a small part of his activities, this trade was important for these areas. Le Maire's company gave a strong impetus to this trade.

After these merchants Marcus de Vogelaer should be mentioned, who was also born in Antwerp. In the initial period (1591-1600) he appears in nine charter-parties 162). He founded the firm of merchants De Vogelaer. This firm did a lot of business with Russia until 1659 and was the most important firm in this trade. In 1607 George Everhard Klenck (born in Dillenburg 1580) had come into his service as factor. After De Vogelaer's death in 1610 he served his widow Margaretha Valckenburg (died in 1650) and was soon made a partner of the firm De Vogelaer. Besides this Klenck also traded for himself since 1625 163).

Another colourful though not very respectable figure of the initial period was Sion Lus, a well-known pawnbroker first in Dordrecht (from 1574), later in Leiden, The Hague, Amsterdam and finally in Breda. There are thirty charter-parties in his name in the period 1599-1605. On November 26, 1601 he obtained "open patens" through his relation in The Hague that demanded free passage and all possible help for him. He then sent his son Abraham Lus to Muscovia with five others to take charge of his affairs and trade there. Lus first ran his business from Leiden but when he became pawnbroker in Amsterdam, he also moved his business there. He met his financial fate in Amsterdam. Lus, who had regularly been accused of fraud was defrauded himself in the trade with Russia. From the affidavits of his factor Nicolaes van Breusegem we learn how Van Breusegem and another employee, Samuel Bernart, who collaborated with his brother Hans Bernart and Dirck Reijniers (both traders in Russia), availed themselves of Lus' privileges, whose possessions and goods in Russia were estimated at 72 to 132,000 guilders. These privileges had to be kept going by great sums of money, donations and entertainments. In Lus'house a lot of money was spent on drink and he kept a large household there. Bernart appears to have endangered Lus'privileges with his own sneak-trade. When he sent Russian leather to Leghorn for his own account, he exchanged bad leather with leather of a better quality, which led to many complaints about the bad quality of the goods of Lus. One must admit that the way in which the factors had to work with the Russian toll-officers made it difficult to remain fully honest. The Russian trade of Lus became a fiasco. He now had to borrow money himself with the proceeds of his pawnbroker's shop as one of the securities. Notwithstanding the heavy expences a nice profit could be made from the Russian trade but several merchants lost their money in it 164).

Finally I would like to mention Dirck Woutersz. (1592-1633). His name appears twenty times in the charter-parties of 1599-1611. He came from Enkhuizen and was probably active there in the trade with Russia. He seems to have specialized in the Muscovy trade. For him this trade was profitable, for he left a fortune of 250,000 guilders. He had a house at the Rozengracht in Amsterdam on the gate of which was painted "the city Smolensko". He also called his cottage at Baambrugge "Smolensko". It is not clear what his relation with Smolensko exactly was. His trade was more directed at Archangel and Lapland. In the nineties of the sixteenth century he came to Amsterdam with his wife. His brother Adriaen Woutersz. (also trader to Russia) was born in Dordrecht in 1582 165). Here we have a link between Dordrecht and Enkhuizen. From

both places trade was carried on to Archangel and Lapland from a very early date. It is clear however, that it was mainly the Antwerp merchants who were active in the trade to Northern Russia before 1585. When these merchants left Anwerp for Amsterdam in 1585 the centre of this trade also moved to Amsterdam and they laid the foundations of the Amsterdam trade-relations with Northern Russia. The majority of the factors and agents trading in Russia in the initial period also came from the Southern Netherlands.

Besides the merchants mentioned above the most important merchants trading with Northern Russia in the first half of the Seventeenth century were: Jean le Brun 166), Gommer Spranger 167), Pieter and Selio Marselis, Jan and Daniel Bernard 168), Arend Schuyt, Joan Andrea and Ottavia Tensini 169), Jacob Teunisz. van Stralen (son-in-law of Dirck Wouters, member of the city council of Amsterdam) and Thomas de Swaen (backed by the well-known Elias Trip 170).

For the second half of the seventeenth century one should first mention the Baptist firm merchants Thesingh (Hendrick Thesingh 1631-1681, his widow and his sons Egbert Thesingh 1661-1726 and Jan Thesingh 1659-1701). They are mentioned as freighters 166 times in the period 1663-1700 171).

### The English overshadowed

The question may arise how it was possible that the Dutch were able to compete with the English in the Russian area. After Richard Chancellor had reconnoitred the mouth of the Dwina in 1553 and the Russia Company had been founded, the English had obtained special privileges such as freedom of tolls and of travelling in Russia and a better legal position. The English also had regular diplomatic contacts with Russia contrary to the Dutch. When Narwa fell into the hands of Sweden in 1581 Russia was cut off from the Baltic Sea. As a direct route to Russia and for the Russians to the West, one had to make use of the harbours in the North, Lapland but especially the mouth of the Dwina became vitally important.

After 1581 also the Russia Company had to use the Arctic waters for direct trade-contracts with the Russians. They first sailed to St. Nicholas at the mouth of the Dwina but after the Dutch had made Archangel into a sea-port town, the Russia Company also went there.

The main English export-article was cloth as it was in the Baltic. They imported cordage, hemp, wax, tallow, train-oil, furs and hides 172). Their trade was in fact barter-trade. The Russia Company delivered a great deal of cordage to the English Admiralty but the English government was not very eager in paying its debts to the Russia Company.

The Russians needed silver for their own coins and tried to obtain this by their trade. That is why the trade with the English was not very profitable for the Russian economy, since they did not pay tolls and did mostly barter-trade. All other nationalities paid toll in silver-coin and had to pay cash for Russian goods in Archangel. It was always less profitable to trade by barter than to pay cash. The difference in Archangel amounted to 10, 12 or 15 % 173). For certain goods sometimes one fifth, a quarter or a third of the price had to be paid in silver coins. In 1660 it had become customary that this had to be done for one quarter, half, three quarters or the full price 174). That is why one had to have a supply of silver rixdollars and ducats in Archangel.

The English had to be careful with their silver. English coins could not be exported, only foreign currency. Their Eastland Company was handicapped in its Baltic trade by this limitation. Also the Russia Company suffered from it 175). The export of silver rixdollars and ducats was no problem for the Dutch and their ships brought these coins to Archangel. The Danish and the English have tried to avoid the expensive Archangel market by trying to make direct contact with the Russian fur-dealers 176). When they try to make contact with fur-dealers in the mouth of the Petschora in 1611, they cannot buy fur because they have no specie. Soon after this Russia prohibits foreigners to trade outside the Russian tolls. I am of opinion that the lack of specie and

the competition combined were reason why the English Russia Company lost its market-position in Archangel notwithstanding its privileges. It was overshadowed by the Dutch quite early, probably as early as the end of the sixteenth century. For the Dutch the unfavourable balance of trade with Russia was no handicap since the Amsterdam staple-market could handle this. The available English specie was also needed for the English East India Company. If we look at the import and export of goods, trade to Asia was extremely unprofitable. Silver and gold also played an important part in the trade-competition between the English and the Dutch. Because the English were not strong financially they lost the competitive struggle with the Dutch, notwithstanding their privileges (until 1648).

Besides Richard Barne, also Peter Allen, merchant in London who regularly freighted ships to Archangel from 1597, was an interloper. He also later settled in Amsterdam 177). Above we have also mentioned John Chadsley who chartered ten ships between 1612 and 1619.

### Other Dutch shipping practices

In trade there are many international relations. Not only the charter-parties but also many other deeds give evidence of this. Sometimes English merchants in Amsterdam acted for English merchants in Hamburg.

From 1605-1608 the Amsterdam merchant Jan Thijsz. Vleyshouwer freights ships for German merchants, viz. Alessandro Rocca and Walraven Hillegers, merchants in Hamburg and in 1606 for Giovanni Battista Chinucci. The Hamburg merchants Gijsbrecht van Dalen and Caspar Wolf are mentioned as freighters in 1607 and 1608. In 1606 Isaac van Eijckt, merchant in Lübeck, is mentioned as freighter and Elias Petit, merchant in Staden in 1607 and Jan Clamp and Hermann Muller, merchants in Bremen in 1608. 178).

The Amsterdam merchants were also interested in Russian goods that arrived at Hamburg or Bremen. In a time of war a neutral harbour was always important if one wanted to continue trade under another flag. In 1628 De Moucheron prides himself on the fact that he sent ships from Hamburg to Archangel to bring grain to Spain and the Flemish coast. When some Amsterdam merchants (Josua Rendorp among others) pointed out to him that this was prohibited and threatened to have his ships stopped by men-of-war, he defended himself by saying that that would be a foolish thing to do since it was the Amsterdam merchants who were interested in this. It is clear that under a neutral flag certain Amsterdam merchants were active in a trade that was forbidden to them 179).

As in other commercial affairs one is not always certain if the merchant who appears as the active party in a charter-party is really the man who is in charge. Some other notarial deeds tell us how the relations really were. Some merchants traded on commission also at the year-market of Archangel. Other had formed a company to do so.

With the exception of large consignments of grain, tar, hemp or linseed, the merchants who had to send goods back to Amsterdam from Archangel, distributed their goods over various ships. It happened that a ship had 25 or more loaders. In Archangel the whole cargo was declared in the name of the largest loader who would settle accounts with the other loaders. Also the anchorage-fees were in his name.

There came about 10 % expenses on goods that were bought on the year-market and loaded in the ship for toll, commission, broker's fees, ware-house rent, packing and other wages 180). Goods that had to be sent from Moscow to Archangel were transported by land by ways of Jaroslav to Vologda and were then shipped to Cholmogory and Archangel along the rivers Suchona and Dwina.

### Settlements in Archangel

In the first half of the seventeenth century and probably as early as the end of the sixteenth the Amsterdam merchants had their own ware-houses and houses in Archangel. In 1606 Sion Lus sold his ware-house and residence at the "German Gasthof"

in Archangel to Herman Jansz. van der Goes who sold it that year to Gaspar de Vogelaer, who again sold it to Addriaen Sybrecht Faes in 1613 (181).

All ware-houses and houses in Archangel were made of wood. At the great fire of Archangel of 1619 the whole city was laid in ashes and the merchants also lost their ware-houses. The damage was very great, for the goods stored were also lost. For Gillis Meunicx (all whose goods were burnt and whose silver-ware melted into one lump) this was probably a reason to become less interested in the trade to Russia (182).

In the notarial archives there are several deeds of the sale of houses and ware-houses in Archangel. In the next fire of 1667 another great number of ware-houses and goods (also large consignments of hemp) were lost. Later stone ware-houses were built. Valuables were sometimes stored in fire proof cellars. In the charter-parties of the first half of the seventeenth century it is stipulated from 1619 onwards that crews were to assist in case of fire in Archangel. A ware-house that was sold in 1630 appears to be 10 by 10 metres. The price of a ware-house was f 500,- in 1663, 1664 and 1670 (183). The Klenck family owned the Klenckenhof in Archangel. In her will of 1629 the widow of Marcus de Vogelaer leaves her three sons Marcus, Johan and Daniel de Vogelaer houses and guest-houses in Archangel, Cholmogory, Vologda, Jaroslav and Moscow (184).

The entrance to the Archangel harbour was not very good. This is why in 1642 the merchants wanted to make use of the new outlet of the river at Archangel. They authorized a few colleagues to effect this, who could spend 1500 rubles (f 7500,-) to obtain this right. To pay their joint expenses they would agree upon a fee to be paid per last in Archangel (185).

#### The prices of rye

For a few products it is possible to learn something of the prices that had to be paid in Russia and the prices that these products fetched on the Amsterdam market. In some contracts the buying-price is mentioned; some from merchant to merchant but also several from the Commissioner of the Czar to merchants in Amsterdam.

In January 1633 a group of 24 Amsterdam merchants bought 5000 lasts of rye from Van der Heiden, representative of the Czar, at f 62,50 a last f.o.b. In Archangel the additional costs were 2% for toll and bonuses and one rixdollar per last as commission for the Amsterdam merchants Joost Willemsz. Niekerck and Josua Rendorp (186). The latter two then earned f 12500,- on this transaction but of course they will have had their expenses. Delivery was made in Archangel in August 1633. In 1633 the November-price of Prussian rye in Amsterdam was f 125,30 a last. The buying-price was f 312,500,- and it was sold at f 626,500,-. The merchants had to take care of the money and the ships. The freight-price of rye (charter Amsterdam-Archangel-Amsterdam) was then f 20,- a last, that is f 100,000,-. Added to this had to be 2% for tolls and bonuses, a loss of interest of 6 months, 3% insurance and 6 to 7% expenses to be made in Amsterdam for unloading, storing and transportation. The profit made was probably f 100,000,- (difference between selling- and buying-price f 314,000,-) and thus a profit was made of 30%. The price of the rye f.o.b. Archangel rose however. In Januari it was f 62,50, in May f 67,50 and early July f 75,- a last.

A consignment of 500 lasts of wheat that was also sold in January 1633 promised to yield an even larger profit (187). On the same conditions as above the buying-price was f 80,- a last and the market value was f 203,- in May 1634.

In June 1658 the Commissioner of the Czar, John Hebdon, sold 4000 lasts of rye to well-known traders to Russia, viz. De Vogelaer and Company, Joan Andrea and Ottavio Tensini, Lucas and Henrick Scholten, Pieter van Lutsen and Nicolaes Bogaert at a price of f 86,25 a last f.o.b.; one part was to be delivered that year, the next the following year (188). These merchants must have had some insight in the Amsterdam rye market. When they made this contract the price for Prussian grain in Amsterdam was f 133,- a last (in Russia then f 86,25). The price of rye went up regularly and rose

to f 170,10 a last in November. Also in 1659 the price of rye remained high and in November 1659 f 175,- had to be paid. Payment had to be made with 2000 pounds of copper wire (value f 60,000,-) and the remainder (f 285,000,-) in good ducats (no Arabian) which were reckoned at 2 rixdollars. The difference between the buying-price (f 345,000,-) and the selling-price probably yielded a profit of 30%.

This does not mean that the profits were always quite that high. In November 1630 the price of rye at the Amsterdam exchange had gone up to almost f 439,- a last; Johan van Veltdriel paid a visit to Moscow in the capacity of ambassador together with Albert Burgh in 1630 and advised the well-known Andries Dionys Winius to buy a large consignment of rye in which some Amsterdam merchants were interested. Winius bought 5263 lasts of rye at f 133,- a last (189). This transaction involved a sum of f 700,000,-. The consignment would be delivered in 1631 which meant that the rye would arrive in Amsterdam in October or November of that year. In 1631 the market-price dropped to f 192,- a last in December. This continued until 1632 when the price was only f 133,- a last in December, that is down to the price at which Winius had bought it. If all went well and the rye was delivered and sold in time, this meant that there was a buying-price of f 133,- against a selling-price of f 192,-. This transaction must have resulted into a loss rather than a profit.

A computation of the profit of smaller rye-contracts yielded a profit of about 17½%. I will suffice here with the mention of other contracts such as a contract of 1660 for f 450,000,- of hemp (190); a contract of 1629 between Amsterdam merchants for 110,000 pounds of silk with a value of f 87,412,- for which the other party was to deliver silver-ware of f 43,700,- to Amsterdam traders to Muscovy (191) and large consignments of linseed and barley (192).

#### Other goods

Something can be said of other goods that were taken to and brought back from Archangel. These goods are mentioned in many deeds (193). Shipping to Italy becomes regular after 1594. It was especially the company of Isaac le Maire and Marcus de Vogelaer who were among the first to ship to Italy. Popular articles in Italy were caviar (194) and Russian leather (Russian leather had to be red on the outside and white on the side of the meat) (195). In the cargoes that came from Archangel one could find hides for which there was a good market in Amsterdam. Dry cow hides (Schevinken) and other dry hides, boatskins, elk hides, sealskins (usually from Lapland) (196), rough bristles and furs. Salted fish and stock-fish also came from Lapland (197).

Other products from Archangel were rye, wheat, barley, hemp, (sometimes in very large consignments), hempseed, linseed, tar, wax, tallow, mats, cordage and beaverwool (198). Other were train-oil (often from Lapland), ship's masts (sent to Spain at a great profit in 1615) (199), potash (in 1654 for f 114,950,- in exchange for English cloth) (200), potash of woad, Persian silk (contracts with a buying value of f 210,000,-) (201), musk (from Persia; at the end of the seventeenth century the Dutch merchants had a monopoly on this) (202) and rhubarb (from China, brought to Moscow through Siberia in caravans).

The balance of trade with Russia was rather passive. The import from Russia had a much greater value than our export to it. The Russian economy was not in a position to allow an adverse trade balance. Actually too great a part of our export to Russia consisted of luxury articles. Cloth (mainly English in various colours, also from Limburg, Munster, Silesia, Hamburg and gold-cloth from Italy), silk-cloth, satin, velvet (with gold from Italy), braids and trimmings, gold- and silver-thread, gloves, lace (203), damask, silk hangings, jewelry, precious stones, pearls, rings, wine, druggist's articles (arsenic, campher, incense, alum and gall-nuts), brazil wood, carmine, indigo, paper (sometimes 1600 reams at a time), mirrors, ivory, elephant's teeth, coral, Further large quantities of gunpowder, carbines, pistols, fire-locks, holsters (204) and finally silver-coin, sometimes in large quantities. The Amsterdam staple market could supply all these articles and could handle the great assortment of Russian goods.

The Moscovy trade was considered a rich and important branch of commerce in which draperies, wool-dealers, dyers, cloth-makers, gunpowder and armament factories had their share and which was also profitable for the shipping companies and trades that were concerned with the maintenance and building of ships.

#### Rates of exchange

In the notarial archives one finds very many protests of bills of exchange and they are therefore an important source if one wants to determine the rate of exchange. In the literature the rates of exchange Archangel-Amsterdam are unknown. It is therefore of interest to give them. This list concerns bills of exchange that were drawn in October or November in Archangel on merchants in Amsterdam on 4-8 weeks sight. In the bill of exchange the rate of exchange of the ruble is mentioned as regards the guilder.

1606	1 ruble = f 7,50 -	1681	1 ruble = f 5,-
1607	= f 7,50	1682	= f 5,05
1613	= f 7,10 - f 7,50	1684	= f 5,-
1625	= f 6,-	1685	= f 4,95
1626	= f 6,-	1687	= f 4,70
1629	= f 6,-	1693	= f 4,75
1634	= f 5,50	1696	= f 5,-
1640	= f 5,20 - f 5,25	1697	= f 4,79 - f 4,80
1645	= f 5,25	1700	= f 5,-
1648	= f 5,60	1701	= f 4,70 - f 4,75
1650	= f 5,30	1702	= f 4,55
1651	= f 5,40 - f 5,50	1703	= f 4,35
1656	= f 5,35	1704	= f 3,50 - f 3,60
1661	= f 4,50	1705	= f 3,20 - f 3,25
1662	= f 4,20 - f 4,50	1706	= f 3,20 - f 3,50
1663	= f 4,25	1707	= f 3,20
1674	= f 5,-	1708	= f 3,50 - f 3,65
1677	= f 5,-	1709	= f 3,40 - f 3,60
1680	= f 5,10	1710	= f 3,20 (low rate of exchange, war between Russia and Sweden).

Finally I should again point the importance of the notarial archives, which I tried to demonstrate here. I would also like to suggest that it is desirable that this source is studied more. On the other hand it must be said that the accessibility of the extensive but very important Amsterdam notarial archives greatly depends upon the indexes on subjects, geographical names, personal names which are being made and will have to be made. 205).

#### HET AFLOPEN VAN DE 'MADONNA DE LA PIEDAD' IN 1639\*

door Dr. C.M. Schulten

#### Inleiding

De tijdgenoten van Frederik Hendrik moeten vaak trots en met bewondering hebben vastgesteld, hoe welvarend en rijk de Republiek der Verenigde Provinciën wel was. Bij gunstige wind, wanneer een paar honderd schepen tegelijkertijd de Republiek verlieten, kon men een goede indruk van de grote handelsvloot krijgen. De 'Courante uyt Italien ende Duytschlandt', dd. 15 januari 1639, berichtte het volgende:

"Dese weke zijn ontrent 50 Schepen van Oosten in 't Vlie ghearriveert, ende een daarvan is in 't inkomen ghebleven. Verleden Woensdagh voormiddagh zijn uyt Texel t' zeyl ghegaen de Oost-Indische Schepen, met een goet ghetal Coopvaarders na Vranckrijck, ende na den middagh de West-Indische Schepen, thien na Brasilien met 1500 Soldaten onder den E. Heer Artisisotzky, ende vijf Schepen na Couracao, benefens noch veel andere, soo Straetvaarders als andere, tot over de twee hondert in 't ghetal. In de Mase lagen oock zeyl-reede twee Schepen met 300 Soldaten na Fernamboucq, die hun bij deselve Vloot sullen vervoeghen".

De suksessen van Maerten Harpertsz. Tromp gaven reden tot vreugde. Op 18 februari 1639 leverde hij met elf schepen slag tegen 23 schepen uit Duinkerken. De Staten-Generaal beloonden hem hiervoor met onder andere een gouden ereketen, terwijl de Franse koning Lodewijk XIII de admiraal benoemde tot ridder in de orde van St. Michel. Overigens schijnt Tromp zelf om deze benoeming gevraagd te hebben; althans dat is de lezing van Alphonse de Lopes, een vertrouweling van Richelieu, die in 1639 voor Frankrijk wapenaankopen in de Republiek deed 1). Een Franse afgezant, Nicolas le Seigneur, heer van Amontot, die op 11 april 1639 in Den Haag arriveerde, bracht de benoeming mee 2). Nog groter indruk maakte Tromps strijd tegen de Spaanse armada in oktober van dat jaar. Dichters grepen naar de pen en Caspar Barlaeus liet niet na een 'Oratio Panegyrica, De Victa Hispanorum Regis Classe' te publiceren en deze aan Jan en alleman toe te sturen.

Maar de medaille had ook haar keerzijde. In 1638 deed Cornelis Jol, alias Houtebeen, een poging om de Spaanse Zilvervloot te onderscheppen. Door het flauwhartig optreden van een zestal kapiteins ging dit mooie plan de mist in. Het onverkwikkelijke proces, dat hier in 1639 op volgde liet nog eens zien, hoe moeilijk het was de gevechtdiscipline op de vloot te handhaven en hoe lastig om schuldigen, afkomstig uit verschillende provinciën, gezamenlijk te straffen.

Meer dan eens vielen koopvaarders in handen van de Duinkerker kapers, getuige onder meer de brief, die Anth. Steengracht op 20 juni 1639 namens de Admiraliiteit van Zeeland aan de Staten-Generaal schreef:

"Wij en connen niet nalaten uw Ho:Mo: te adviseren, alsdat de Lonnen-ende Douvervaarders tot elve in getale, daer van de thiene thuis hooren tot Vlissingen ende een tot Middelburch sijnde uytgelopen onder de bescherminge van de Capitein Frans Mangelaer om herwaerts te comen, is gebeurt, dat sij omtrent vijf mijlen van Voorlandt gisteren morgen tusschen twee ende dry uren hebben gerencontreert elff fregatten van de vijandt, bij welcke sij alle, geene uytgesondert, sijn genomen, ende is den voorss. Cap. n alleene geësschappeert, welck seer droevich ende jammerlijk ongeval alhier ende voornamentlijk tot Vlissingen seer groote alteratie causeert, te meer denwile alle daege herwaerts werden verwacht de schepen van Nantes, Rochelle ende Bourdeaux, die al t' samen niet meer als met een convoyer en sijn voorsien" 3).

Op 13 juli 1639 vielen zeven Duinkerker fregatten een kleine vloot van tien schepen op weg naar Rouaan aan. De twee konvooiers verdedigden zich slecht. Het verhaal ging zelfs, dat de luitenant van de grootste konvooier, die bij afwezigheid van de kapitein het bevel voerde, dronken was 4). Onder de koopwaar, die hierbij verloren ging, bevond zich onder meer een partij boeken, die de Amsterdamse koopman Joachim

\*noten zie pag. 116