BPAC

BALTIC PILOTAGE AUTHORITIES COMMISSION

REPORT
on the conference in

The BPAC - Secretariat
Copenhagen, January 2001

Contents

Agenda Item 1 Opening of the Conference

Mrs. Monika Breuch-Moritz gave a warm welcome statement to the conference. The German government considered it to be an honour to host the conference as a part of the „EXPO by the Sea“ in Wilhelmshaven.
BPAC chairman Mr. Tomas Böök also welcomed the Y2K conference of the BPAC.

Mr. Tomas Böök presented the agenda suggesting some changes according to organisational necessities. The agenda was adopted (see the new agenda on page 2)

In memory of Mr. Tapio Rauman, Finland, who passed away in spring 2000, the participants observed a two-minutes silence.

The conference was opened thereafter by Mr. Tomas Böök.

Agenda Item 2 Presentation of the new German SWATH pilot vessel

Mr. Michael von Baur, marketing director of Abeking & Rasmussen, a shipbuilding company for small and medium sized vessels for specialised purposes, which is located near Hamburg, gave an in-depth presentation of the two new pilot tenders and the new pilot station ship. The tenders had been taken into service about a year ago, the station ship has been tested since June. All are designed especially for service in the German Bight, which has water depths of between 20 m and 50 m and is especially exposed to northern, north-western and western winds characteristically resulting in rather high and also rather short waves. The SWATH tender is unique because it is designed to plow through these waters without the rolling movements of smaller vessels; thus the transfer trips offer much more convenience for the pilots. At the same time pilots can be transferred more safely.

Later in the day one of the tenders gave a live presentation of its manoeuvring abilities; whereafter the participants of the conference could embark the tender and get a first-hand impression of the vessel. The presentation included a demonstration of a helicopter hoist.

In the evening the participants had the opportunity to inspect a VTS-station.

Agenda Item 3 Reorganisation of the Dutch pilotage system

Mr. Léon van der Meij, Senior policy advisor of the Ministry of Transport, Den Haag, updated the Conference on the reform process in the Netherlands. The pilotage system in the Netherlands currently consists of 600 pilots and another 400 persons as support staff. Overall costs (including ships) are 130 Million US $ per year. Key feature of the reform is the introduction of competition between the pilots and pilot services (tenders, however, will be obliged to take every pilot).

The Government only will have to set up safety standards for the pilots, most notably a thorough examination procedure.

The Netherlands also plan to introduce flexible standards for compulsory pilot acceptance for ships with lengths of 60 m to 100 m. Criteria will be (e.g.) the quality of the ship and the crew, the cargo, and sea state conditions. Authorities have to decide on a ship-by-ship basis about compulsory pilot acceptance; the necessary information comes from different sources like port state control, EQUASIS, historical data on the ship and documents forwarded by the owner.

(See Annex 1 for more details)

Agenda Item 4 The „Clement" accident

This year, the „Clement" accident in the Baltic again raised the question whether there are possibilities to improve the safety in the Baltic, especially in the Kadet Strait. The Conference was informed about the ongoing talks between Denmark and Germany about safety improvements in the Kadet Strait.

The Conference agreed that a major oil or chemical spill would have disastrous consequences for the Baltic and should be avoided under all circumstances. At the same time the Conference agreed that only appropriate action should be taken. So the cost of any measurement has to be weighed carefully against the achievable safety improvements. Therefore every aspect of the safety system – with the possible introduction of compulsory pilotage being one aspect – has to be taken into consideration.

The BPAC had presented the idea of compulsory pilotage for certain ships to HELCOM in 1996, but could not find the necessary support there. Especially member states Finland, Germany, Poland and Sweden expressed concerns about the current situation, taking into consideration the steadily rising traffic in the Baltic: In their opinion BPAC is well advised not to leave the aspect of compulsory pilotage unattended and should carefully evaluate its options for appropriate action.

Finally the BPAC unanimously decided to set up a preliminary study group. The group has a fact finding mission: It will collect the available data and options and present its work at next year's conference.
Members of the preliminary study group are:

Finland:	Markku Mylly, Finnish Maritime Administration, Porkkalankatu 5, FIN 00190 Helsinki. Tel 358-20448-4205. Email markku.mylly@fma.fi
Germany:	Martin Voswinkel, Federal Ministry of Transport, Robert Schumann-Platz 1, D-53175 Bonn. Tel 49-228-300-4643. Email Martin.Voswinkel @bmvbw.bund.de
Poland:	Andrzej Batycki, Ministry of Transport, St. Chalubinskiego 4/6, PL-00-928 Warszawa. Tel +(48)(22) 630 15 70, Email abatycki@mtigm.gov.pl
Russia:	Alexandre Bystrow, Department for Maritime Transport RF, 1/7 Rozhdestvenka, Moscow. Tel 7-095-926-9038. Email
Denmark:	will function as secretariat for the group. Denmark will also look at the possibility of connecting a legal adviser to the working group.

Agenda Item 5 Report from the Secretariat

The Secretariat informed the conference that the new logo is now protected world-wide for the BPAC. The Secretariat also announced further improvements of the BPAC website www.balticpilotage.org.
The web address will appear in the next edition of the BPAC guide. The Secretariat will look into the possibility of inserting a small sticker on the booklet with the web address.

Agenda Item 6 Mutual Information about developments since the last Conference

Denmark
As a continuation of last year's speech on a benchmarking study on the pilotage services in the Scandinavian countries, Denmark informed of the strategy for development of the Danish Pilotage Service.
Denmark presented a portable data exchange device based on GPS / GLONASS costing about 30,000 US$ each.

Estonia
informed about the structure of the pilotage system in Estonia. It currently consists of 47 pilots being organised as a state business enterprise including pilot services. It is planned, however, to accumulate and reinvest revenue into the organisation.

Finland
In Finland the pilots are a part of the administration; no privatisation is being planned. In recent years, substantial cost savings (20 %) have been achieved by streamlining the infrastructure and introducing certain cost saving incentives. All initiatives could be realised in full agreement with the pilots.

Germany
is in the beginning of a reform process, designed to gradually improve the productivity of the – still very traditional – pilotage system and maintaining the high safety standards at the same time. The reform-process will examine every aspect of the system and carefully scan possible improvements. Initially, the pilotage rates are under scrutiny. Rules for compulsory pilotage and pilotage services (which are still run by the government) will follow.

Norway
also substantially improved the cost structure and productivity of its pilotage system.

Poland
reported on a fully privatised pilotage system (since the beginning of the nineties).
In general, this privatisation can be viewed as successful, even though some details – mainly about control aspects – once in a while cause discussions between the pilot companies and the government. Right now the pilot companies are looking for ways to establish and improve mutual co-operation in order to reduce costs and improve the service.

Poland also informed of a new maritime code (with a liberal bias) being discussed in parliament.

Russia
informed the Conference about new and stricter rules for compulsory pilotage for tankers approaching St. Petersburg. The Conference also was informed about structural changes in the pilotage system causing controversial discussions between the pilots´ organisation and the government.

(See Annex 2 for more details)

Sweden
Due to the advanced time Sweden gave no specific report.

Agenda Item 7 Statistics
Due to the advanced time the Secretariat gave no specific report.

Agenda Item 8 Date and place of the next Conference
The next BPAC Conference will be held

28 – 30 May 2001
in Oslo, Norway

and may include excursions to the Norshipping Exhibition and the VTS-station in Horten.
Participating authorities are invited to propose items for the agenda.

Poland suggested that the BPAC conference 2002 be held in Gdansk.

Agenda Item 9 Any other business
The conference visited the helicopter-base „Mariensiel“ of Wiking Helikopter Service GmbH, Hamburg, the company conducting the helicopter-transfers of pilots in the German Bight.Wiking´s chief executive, Mr. Schneider, described the company's operations and economics.

The conference also was welcomed to the pavilion of the German Federal Ministry of Transport, Building and Housing of the „EXPO by the Sea“ and got a detailed presentation of the exhibits.

Uno Pålsson, Sweden, expressed the opinion that action is necessary if we want to keep pilotage in the Baltic Sea. There is a decline in deep-sea pilotage due to high travelling costs and North sea pilots piloting in the area.

The Polish delegates brought forward the suggestion to form a pool of Baltic pilots as a Baltic pilotage authority.

Juha Tulimaa, Finland, expressed greetings from the EMPA. BPAC can expect an invitation to the next EMPA meeting.

Agenda Item 10 Closing of the Conference

Mr. Tomas Böök closed the Conference and wished everybody a save trip home.

List of participants at the BPAC conference 5 – 7 September 2000

Denmark	Martin Richter, Deputy director general Torben Frerks, Pilotage superintendent Inger Andersen, Senior assistant Finn Wessel, Pilot
Estonia	Matti Kast, Head of Pilot Service, Vessel Traffic Services Harry Sillamaa, Sea pilot, Vessel Traffic Services
Finland	Markku Myyly, Deputy director, Finnish Maritime Administration Juha Tulimaa, Chairman of Finnish Pilotage, Finnish Maritime Administration
Germany	Monika Breuch-Moritz, Head of section, Bundesministerium für Verkehr, Bau- und Wohungswesen Martin Voswinkel, Bundesministerium für Verkehr, Bau- und Wohnungswesen Franz Josef Mödden, Head of regional Pilotage Administration, Waterway and Shipping Directoray Northwest Udo Hintze, Pilot, Baltic Sea Pilots, Kiel
Norway	Eirik Sire, Director, Norwegian National Coastal Administration Öyvin Starberg, Head of pilotage section, Norwegian National Coastal Administration
Poland	Andrzej Batycki, Deputy director, Ministry of Transport Kazimierz Goworowski, Director, Baltic Pilot Marbalco Shipping
Russia	Alexander Glukhov, Deputy harbour master, Port Authority, St. Petersburg Alexandre Bistrov, Deputy head of Maritime dept., Ministry of transport Vladimir Egorkin, Head of RMPA, St. Petersburg
Sweden	Tomas Böök, Pilot service co-ordinator, Swedish Maritime Administration Uno Pålsson, Pilot, Swedish Maritime Administration
Netherlands Guest	Léon van der Meij, Senior policy advisor, Ministry of Transport

Annex 1

PILOTING VTS THROUGH UNCHARTED WATERS

The Dutch approach to the use of market forces in operational vessel traffic management.

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SUMMARY

The organisation and operational set-up of vessel traffic management in the Netherlands is on the brink of fundamental changes. These changes will not only affect the traditional services of pilots. It will also affect vessel traffic services (VTS) and its co-operation with pilotage.

New policy intentions on navigation support services (i.e. pilotage and VTS) have been presented to Parliament. They are aimed at offering differentiated, tailor-made navigation services, including regular provision of shore based pilotage. The compulsory use of these services takes into account the quality of the vessel and its crew. The proposals have build-in incentives for both technological innovations and quality shipping, by offering lower priced services for higher quality shipping, and by introducing competition between providers of navigation services meeting set safety-related requirements.

The R&D on VTMIS has encouraged the expansion of the involvement and contribution of VTS in both traffic and transport management. By exchanging and sharing data the management of fleets, port resources and cargo flows by the shipping and port community can and has been improved. In turn this EDI has improved the performance of the VTS's in the Netherlands.

1. Introduction

This paper presents a description of the expected developments in Vessel Traffic Services (VTS) within the Netherlands, in particular evolving from:

- the new policy intentions on navigation support services (i.e. pilotage and VTS)
- the expansion of VTS into Vessel Traffic Management and Information Services (VTMIS)

Some of these developments, such as introducing market forces into pilotage and offering permanent shore based pilotage and enhanced navigational assistance from the VTS, are rather new to the world. We are "**piloting VTS through uncharted waters**" in the Netherlands. This paper outlines how far we want to take this and with what safeguards.

2. Background

2.1. VTS

There are seven distinguishable harbour approach areas in the Netherlands. They are (from south to north, see the annex to this paper) the approaches to:

1. the Westerschelde
   for the ports of Vlissingen and Terneuzen and the Belgian ports of Antwerp and Gent
2. the Nieuwe Waterweg
   for the ports of Rotterdam, Hoek van Holland, Maassluis, Vlaardingen, Schiedam, Dordrecht and Moerdijk
3. the Scheveningen harbour
   for the port of Scheveningen (The Hague)
4. the Noordzeekanaal
   for the ports of Amsterdam, Velzen/IJmuiden, Beverwijk and Zaanstad
5. the Marsdiep
   for the port of Den Helder
6. the Waddenzee
   for the ports of Harlingen and Terschelling
7. the Eems
   for the ports of Delfzijl, Eemshaven and the German port of Emden.

All these harbour approach areas are covered by VTS, offering services ranging from a traffic information service only in the Waddenzee to all VTS services and port management in Rotterdam. Also there are six VTS's on the inland waterways. For offshore activities near shipping lanes temporary VTS's are installed on a case-by-case basis.

At present all vessels with communication equipment participate in VTS. The annual costs for VTS in the harbour approaches varies between 60 to 80 million guilders (approx. 30-40 million USD). Seagoing vessels over 40 m length have to pay a separate VTS-fee, with which 30 million guilders (approx. 15 million USD) per year is recovered.

The national competent authority is the Ministry of Transport, Public Works and Water Management. The local VTS authorities are the municipal port authorities for the approaches to Rotterdam and Amsterdam and the regional directorates of operational branch "Rijkswaterstaat" of the Ministry for most of the other harbour approach areas.

There are about 450 VTS-operators, working round the clock. They receive a 15 week national basic training, composed of theory and simulator training in one of two centres (MSR in Rotterdam and MSCN in Wageningen). This is followed by a 15 week on-the-job training, including theory and simulator training as well, with a national exam. A refresher course and exam is required every 3 years. The nationally harmonised standards for the training and examination are set by a national steering group with representatives of all VTS authorities and the national competent authority. The total set-up is assisted by a staff bureau.

2.2. Pilotage

There are nearly 600 pilots in the Netherlands, of which about half work in Rotterdam, with a supporting staff of just over 400. Annually they pilot nearly 100.000 voyages in, out and within the ports. The gross turnover is 300 million guilders

(approx. 150 million USD) per year. Pilots get a six weeks basic training and a 1 year training on-the-job. Simulators are used here too. After passing the exam they obtain the lowest qualification. It takes another 7 years to reach the highest grades, allowing them to pilot the largest vessels.

At present all vessels over 60 m in length are compelled to use a pilot, with a few exceptions. One of these exceptions is for pilot exemption certificate (PEC) holders. A PEC for a specified destination in the port area can be obtained by passing an exam. It is also valid when sailing other, almost equivalent, vessels. The PEC can be maintained for smaller vessels by sailing the same route six times or more per year. For larger vessels a calling frequency of 18 times or more per year is required. Vessels carrying hazardous cargo in bulk are always required to use a pilot.

In most harbour approaches shore based pilotage is given from the VTS by specially trained pilots with additional VTS qualifications. It is given to a limited number of vessels, meeting specific requirements. This is only done in bad weather conditions when (dis)embarkation on the open sea is too dangerous. The pilot will then (dis)embark within the breakwaters.

2.3. Vessel Traffic Management

In the Netherlands we consider VTS and pilotage to be two of the instruments to carry out vessel traffic management (VTM). The objective of VTM is a safe, environmentally friendly and efficient flow of seagoing and inland vessel traffic going to, from, past and through the Netherlands at acceptable costs.

To achieve this objective a range of instruments is used, such as:
- rules and regulations
- routeing measures
- marine markings (visual aids to navigation)
- radio navigation
- pilotage
- VTS
- information services
- GMDSS
- SAR
- Salvage

The policy of VTM is based on three concepts:
- system approach
  The overall input (financing and manning) and output (safety, environmental friendliness and efficiency of traffic) of all instruments should be assessed as a whole. This avoids overlaps, gaps and unnecessary redundancy. It enables using synergetic interrelationships between the instruments. For example: there is less need for visual aids to navigation when vessels use (D)GPS.
- complementarity ("safety net")
  VTM should complement the available capabilities of the vessel to the level of the required capabilities under the prevailing circumstances. For example: the use of a pilot should only be prescribed when the navigating and manoeuvring skills of the crew are insufficient to sail the vessel in unknown and/or restricted waters.
- methodical, quantitative evaluation

Measuring and analysing traffic, accidents and risks should be the corner stones for determining the (extend of the) implementation of VTM-instruments. For example: installing DGPS does little to prevent collisions.

Within the range of available VTM-instruments VTS and pilotage take a special place.
They are the only interactive instruments, capable to adapt to the needs of the traffic flow and/or each individual vessel. They are also capable to monitor the performance of other - passive - VTM-instruments, such as visual aids to navigation.
VTS is almost always - unlike pilotage - operated by the relevant local authority.
VTS is the own "eyes and ears" of the authority as well as part of the enforcing "arm of the law" to ensure compliance to the rules by the vessels and the other nautical service providers, such as the pilots.

3. New policy intention on pilotage and VTS

3.1. Developments

In 1988 the pilotage service was privatised. The pilots used to be civil servants, but are now self employed. They work together in four regional associations. They are joint owners of the national company FLBV which manages the operations and administration, owns the pilot vessels and employs the supporting staff. Each pilot receives a labour performance related income as well as a share of the profit.

With the privatisation the quality of the service was substantially improved. The waiting time for pilots disappeared. However, pilotage remained a national monopoly, which was not really susceptible to market forces and constrained by detailed legislation. Not all opportunities to improve productivity could be used. The opportunities that could be used were not always used. The gains from the opportunities that were used were not always transferred into lower pilotage fees.

Apart from the disappointing effects of the privatisation on the fees there were some other unexpected side-effects. There was a substantial (30%) increase in the number of vessels compelled to use a pilot, increasing the financial burden of the shipping sector without a real safety need. The cost recovery of the government expenses on VTS through the pilotage fees was (too) little.

Relationships between the government, pilots, ports and shipping sector had not improved during the privatisation. It took until 1995 before some alterations to reduce some of the negative side effects were finally approved and implemented.
The criteria for mandatory pilotage were changed. A separate VTS fee was introduced whilst reducing the pilotage fees by eliminating the VTS cost recovery component. Also the pilots had to consult the port and shipping community when proposing the annual pilotage fee changes for approval by the government.

During this process it became clear to most of the parties involved that a more fundamental change was needed to resolve the remaining problems. Those problems will be explained later in this paper.
An independent commission was set up, chaired by prof. Frissen, a professor in management science. Their two year review process was carried out with a wide and close consultation of all relevant parties. The resulting recommendations were widely accepted, but needed further detailed development.

A working group of high level government officials, chaired by mr. Brokx, a former government minister, further developed these general recommendations as part of

so-called "MDW" operation. This is an administration-wide review to introduce more market mechanisms, deregulation and legislative quality everywhere. Their recommendations were discussed in detail both in the various regions as well as on national level with all parties concerned.

The white paper "Policy Intentions on Navigation Support Services in the Sea Port Areas" was the result. This document was approved by the Cabinet in July 1999 and is now under consideration by Parliament. When approved it is the intention to present the required changes in legislation to Parliament next and implement the proposals by the end of 2001.

3.2. Proposals

There will be changes for pilotage and VTS in relation to:
- organisation
- operation
- charging

as well as particular measures for:
- transition

3.2.1. Organisational changes

At present the rules for all VTM instruments, including pilotage and VTS, are determined at national level and are applied uniformly in all regions. The regional authorities, responsible for (the supervision on) the operation of these instruments, have little leeway and competence to adapt the application of these instruments to regional characteristics. There is little room too for influencing the decision making process by other (regionally) interested parties.

In the new policy the national authority will only determine criteria at so-called "output" levels, i.e. the required safety, environmental protection and efficiency of traffic. This can be done by determining the acceptable amount of accidents, spills and delays with compulsory annual reporting on the achieved results on these parameters.
Regional Authorities will be (re)determined to carry out VTM under a Regional Body, composed of national and local government representatives. They are supported by a regional Navigation Advice Council with representatives of all regionally interested parties. This could range from shipping agents to environmental pressure groups, creating the necessary "checks and balances" between commercial forces and (environmental) safety.
The Regional Body will decide on the required "input" criteria, such as the criteria for the compulsory use of pilotage and VTS, to meet the "output" level set by the national authority. As the future output level will not diverge largely from the presently achieved levels of safety the required input criteria will also not diverge much from the present criteria. However, it does offer more room to incorporate specific regional demands into the pilotage and VTS requirements.

3.2.2. Operational changes

At present there are - in general - only two levels of service, i.e. "pilot required" and "pilot not required". A few parameters are used to determine which level is needed. If a vessel is a little under 60 m long no pilot is required, if a vessel is a little over 60 m a pilot must be used. Some of these vessels do not need a fully qualified pilot on the bridge to navigate safely, but still have to use a pilot and pay for it. Other smaller substandard vessels with substandard crews are allowed to sail without a pilot, but should have a pilot to be safe.

In the new policy flexibility in the rules is created to incorporate developments in technology into pilotage and VTS. Using among others the possibilities of AIS permanent shore based pilotage will be developed as an intermediate level of service for those vessels that only need limited assistance. Experiments to test this in Rotterdam are being prepared.
Shore based pilotage will never offer the same safety as onboard pilotage. However, the relevant question to ask is "does shore based pilotage offer enough safety in this particular situation?"
To determine the required level of assistance to offer enough safety in a particular situation more parameters from obtainable objective sources need and will be taken into consideration, such as on the:

- vessel
    - manoeuvring capabilities (from pilot chart)
    - onboard equipment, such as DGPS and AIS (from pre-arrival notification and previous calls)
    - maintenance status (from PSC records)
    - hazardous cargo (from pre-arrival notification)
- crew
    - size (from crew list)
    - experience (from assessment of previous calls)
    - communication capability (from assessment of previous calls)
- external circumstances
    - weather and sea conditions (from meteo/hydro forecasting)
    - traffic (from VTS forecasting)
    - local navigational hazards

When specified performance levels on these parameters are met the vessel will be allowed to use shore based pilotage. In any case no vessel will be allowed to come in without an onboard pilot at its first call.

In time also "enhanced navigation assistance", not necessarily provided by a pilot, might be developed as an intermediate service.
The present "navigational assistance " is only allowed to be result-orientated, i.e. advising the vessel where to go. Enhanced navigation assistance could be vessel output orientated, i.e. advising on speed and course, to achieve the desired outcome (future position). Pilotage, and therefore shore based pilotage, often goes down to input level, i.e. advising on propulsion and rudder changes, to achieve the desired output of the vessel (changes in course and speed) and so the outcome (future position). Obviously (shore based) pilotage will require extensive skills in navigating and manoeuvring vessels at input level. Also for enhanced navigation assistance knowledge of navigating and manoeuvring is needed to know what to expect from different vessels, but less on how this will be achieved by the particular vessel.

In the new policy there are no immediate plans to develop enhanced navigation assistance. However, opportunities are created to carefully develop these ideas, which are still in their infancy.

3.2.3. Charging changes

At present the pilots form one organisation with the national monopoly on pilotage. This is necessary to offer a nationally uniform pilotage fee structure, where losses in one region can be compensated within the organisation with profits from other regions. These differences in profits and losses are partly the result of regional differences in market volume (i.e. number of piloted voyages). Also the present pilotage fee structure overcharges larger vessels and shorter journeys and undercharges smaller vessels and longer voyages.

In the new policy pilotage fees will not be nationally uniform, but more differentiated. The fees will be in line with the different costs incurred by offering different services to different vessels in different regions. This will be achieved by allowing others then the one present organisation to offer pilotage, if they meet set quality requirements. The same will apply for shore based pilotage services and eventually enhanced navigation assistance services.

The reduced navigation support requirements for quality ships (see par. 3.2.2.) will cost less and will therefore be offered at lower fees. Some of the new parameters determining the required level of support can be influenced by the ships' owner, such as equipment, maintenance and crew quality. Lower fees offers owners a possibility to earn back these investments in quality. This will be one of the first financial incentives in the world to reward quality ships over substandard ships. As such it will be an incentive to improve quality shipping.

3.2.4. Transition

Parliamentary approval and translation in legislation is needed before these proposals can be implemented. It is expected that implementation can take place by the end of 2001. Until then some temporary measures are foreseen, such as giving the present regional authorities more freedom in requiring mandatory pilotage and in simplifying the rules for obtaining PEC.

There are some specific problems, which need to be overcome before full and free competition within quality constrains can be allowed. For this a limited period of restricted competition on the basis of concessions is foreseen from 2002.

Firstly the elimination of the present cross subsidisation between regions could lead to substantial changes in pilotage fees between the different regions affecting the relative competitive position of the ports. Time is needed for the pilot services in the loss making regions to get used to not being supported by the pilots from other regions and to start reducing costs of pilotage in these smaller, more inland ports, for instance by joint operations with tug services etc.
Secondly the presently active pilots pay for the early retirement of their colleagues at 55. New competitors are not obliged to do this, giving them

an unfair competitive advantage. A financial reserve needs to be build up to pay for these obligations.
Thirdly there are also some obligations from a more then 150 year old treaty with Belgium which link the pilotage fees of Rotterdam to those of Antwerp.

As Belgium is also in the process of liberalising the pilotage service it may be mutually advantageous to untie those links. There are some - less restrictive - obligations too in the treaty with Germany for the Ems which need to be revised.

3.3. Impact on VTS

These proposals will also substantially impact on the VTS. This will be further elaborated in this paragraph.

At present the VTS's are run by the port authorities and regional branches of the ministry and are staffed by public servants. The privatised pilots can use the facilities for free:

- to offer permanent support for pilot (dis)embarkation at the pilot station (only in the "Pilot Maas" sector of Rotterdam)
- to offer temporary shore based pilotage when on-board pilotage is suspended, mostly due to bad weather conditions (to/from within the breakwaters where a pilot then (dis)embarks)

For the interaction between shore based pilots and VTS-operators we have various set-ups now:

- a shore based pilot also doing the VTS-duties on a temporary basis (in the Maas Entrance sector of Rotterdam when on-board pilotage is suspended)
- a shore based pilot for dedicated vessels and a VTS-operator for VTS-duties on a temporary basis using one VHF channel (in the approaches to the Westerschelde when on-board pilotage is suspended)
- a shore based pilot for dedicated vessels and a VTS-operator for VTS-duties on a temporary basis using separate VHF channels (in the approaches to the Noordzeekanaal when on-board pilotage is suspended)

In the new policy - with the possibility of having more, competing service providers offering shore based pilotage and enhanced navigation assistance from the VTS - careful consideration of the consequences on the workshop floor of the VTS centres is needed. The VTS-operator gives traffic information, navigation assistance and traffic organisation to all vessels in the sector. The service providers each give shore based pilotage and (eventually) enhanced navigational assistance to some of the vessels, their clients, within the sector. There will need to be operational constraints and safety limits to the number of service providers using the VTS infrastructure at the same time together with the VTS-operator. Also the competence of the VTS-organisation to monitor the performance of the service providers needs to be established.

The management of the VTS will remain with the Regional Authority. A VTS performs public services. It contributes to the safety of people, environment and infrastructure, which is a public service. VTS also contributes to the (commercial) performance, in particular the expediency, of the ports and the vessels, which is not a public service. Therefore we are of the opinion that the Regional Authority can continue to charge a VTS-fee for this part of the use of a VTS. However, this opinion - which is also the basis for our present VTS-charge - is contested in court

by the shipping community. We will have to await the outcome, which might still take a few years.
Shore based pilotage and eventually enhanced navigation assistance are private services, which will be offered by private service providers, using the VTS infrastructure. With this new arrangement there is a case to charge the service providers

for the use of the VTS infrastructure. They will then incorporate these costs in the fees charged to the vessels for the services they provide using the VTS infrastructure.

3.4. Concluding remarks

All in all there will be substantial changes in the organisation, operation and charging of both pilotage and VTS in the Netherlands. The overriding pre-requisite is the continuation of the present safety level. Therefore there will be an evolution, rather than a revolution. Also these changes will be developed and implemented in close co-operation with the pilots, VTS-operators, the shipping sector and the port communities, to prevent unacceptable side effects.

4. Expansion of VTS into VTMIS

During the research and development activities in the European Union over the past decade the concept of Vessel Traffic Management and Information Services arose. An abstract two-tier definition was developed:

Vessel Traffic Management: the set of efforts (measures, provisions, services and related functions) which, within a given area and under specified circumstances, intended to minimise risks for safety and the environment, whilst maximising the efficiency of waterborne and connecting modes of transport.

Vessel Traffic Management and Information Services intend to respond to public and private demand for facilitating Vessel Traffic Management. VTMIS include services distributing in given areas (at regional, national or transnational level) the pertinent information to be used both in real time and in retrieval modes by actors involved.

with the following explanatory notes:

The implementation of or participation in a VTMIS in a given area does not pre-suppose the existence of any specific type of equipment as long as it is adequate for the tasks to be performed. However it implies that all services which are or will be implemented in the area, such as VTS, Allied Services and other information services, are interlinked and co-operate according to commonly harmonised procedures.

In general VTMIS should be seen as a concept aimed at improving information services used for VTM by developing and implementing new technology, in particular telematics (EDI, AIS etc.). Often the same information on the vessel and the cargo needs to be reported to various organisations involved in VTM, such as different VTS authorities, port authorities, pilots, Coast Guards etc. If the data were exchanged and shared more the parties involved in VTM would have more, more accurate and more timely information. This would improve VTM and the related services. Also the reporting burden on the crew and representatives of the vessel would be eased. However, the constraints of personal privacy and commercial confidentiality need to be considered.

However as the research continued the name, acronym and definition have proven to be confusing and too restrictive, because:

- VTMIS is seen as VTS with added communication features. VTS manufacturers started to call their VTS systems VTMIS. However, information services based on exchanges of data without involvement of a VTS can also be VTMIS, for instance between ports without VTS and rescue services in calamity situations.

- VTMIS should not be restricted to information services in relation to (public) vessel traffic management only. In order to be more beneficial and therefore more acceptable to the shipping and port communities the data should be available for their own (private) transport management, such as fleet, port resource and cargo flow management, as well. This would create a "win-win" situation for both the public and private parties in shipping.
- VTMIS is now also being developed in inland navigation under the name "River Information Services" (RIS).

It might be considered to change the name, for instance to "WAterborne Traffic and Transport Information Services" (WATTIS) with a wider definition to better reflect these new insights.

In the Netherlands we are improving existing information services and introducing new information services along these lines. A few examples are:

- Electronic data interchange between VTS and port management
  Between the Westerschelde VTS and the port management system of the ports of Vlissingen en Terneuzen on the Westerschelde data are now exchanged and shared on vessels, including their ETA/ETD's and hazardous cargoes.
- Electronic data interchange between VTS+port management, shipping signalling
- services and pilots
  In Rotterdam the SWITCH project was completed. Data are now exchanged and shared between the VTS+port management system of the port authority, the shipping signalling services system of the private company Dirkzwager and the pilot management system of privatised pilotage organisation.
- Electronic data interchange between the port authorities and the Coast Guard
  In the EU the so-called HAZMAT directive requires vessels bound for/leaving European ports to report their hazardous cargo to the local competent authorities in these ports (i.e. often the port authorities). These authorities will then have to make this information on a particular vessel quickly available to the national competent authorities for SAR and calamity abatement (i.e. often the Coast Guard) in case of an incident with this vessel. For this purpose an EDI network was set-up between the port authorities and the Netherlands Coast Guard, to which most ports in the Netherlands are now connected.
  In order to be able to obtain this information in case of an incident in our waters with a vessel bound for or leaving an EU port outside the Netherlands a similar EDI network is now being developed between the national competent authorities of several EU countries.
- Electronic data interchange between inland VTS and river barges
  At several locations in the Netherlands there are inland VTS's. On entering a particular VTS-area shipping has to report by VHF extensive data on the vessel and the cargo. To ease this reporting burden and to reduce transmission and registration errors an on-board automatic reporting system, using a PC, modem and GSM, has been developed. River barge owners are encouraged and supported to install these systems. Additional benefits for shipping were created by incorporating software for sign and trim calcula-

  tions, using this information for lock planning and making this information available to other private parties interested in the progress of the vessel and the cargo (only with the consent of the ship owner).
  This initiative is now being developed further within the EU R&D project INDRIS as a basis to reach a common European standard on automatic reporting. This will enable vessels to use the same system and messages for automatic reporting throughout all European waterways.

What is needed is to develop small scale interconnection of various information sources and drains using EDI with an open eye and mind to exchange and share information with others to create a "win-win" situation and to alleviate the burden of the crew.
Although VTMIS networks does not always have to include VTS's they will be part of most networks. Therefore VTS's are key players in creating these opportunities.

5. Conclusions

If everything goes according to plan, you will see when visiting a port in the Netherlands in another 10 years:

- **tailor-made determination of navigation support requirements**
- **permanent shore based pilotage for vessels meeting set quality criteria**
- **enhanced navigation assistance for vessels meeting higher quality criteria**
- **competing service providers for pilotage, shore based pilotage and enhanced navigation assistance**
- **lower fees, proportional with the costs of the services rendered**
- **more efficient traffic flows and transport services**
- **better informed services**
- **less reporting**

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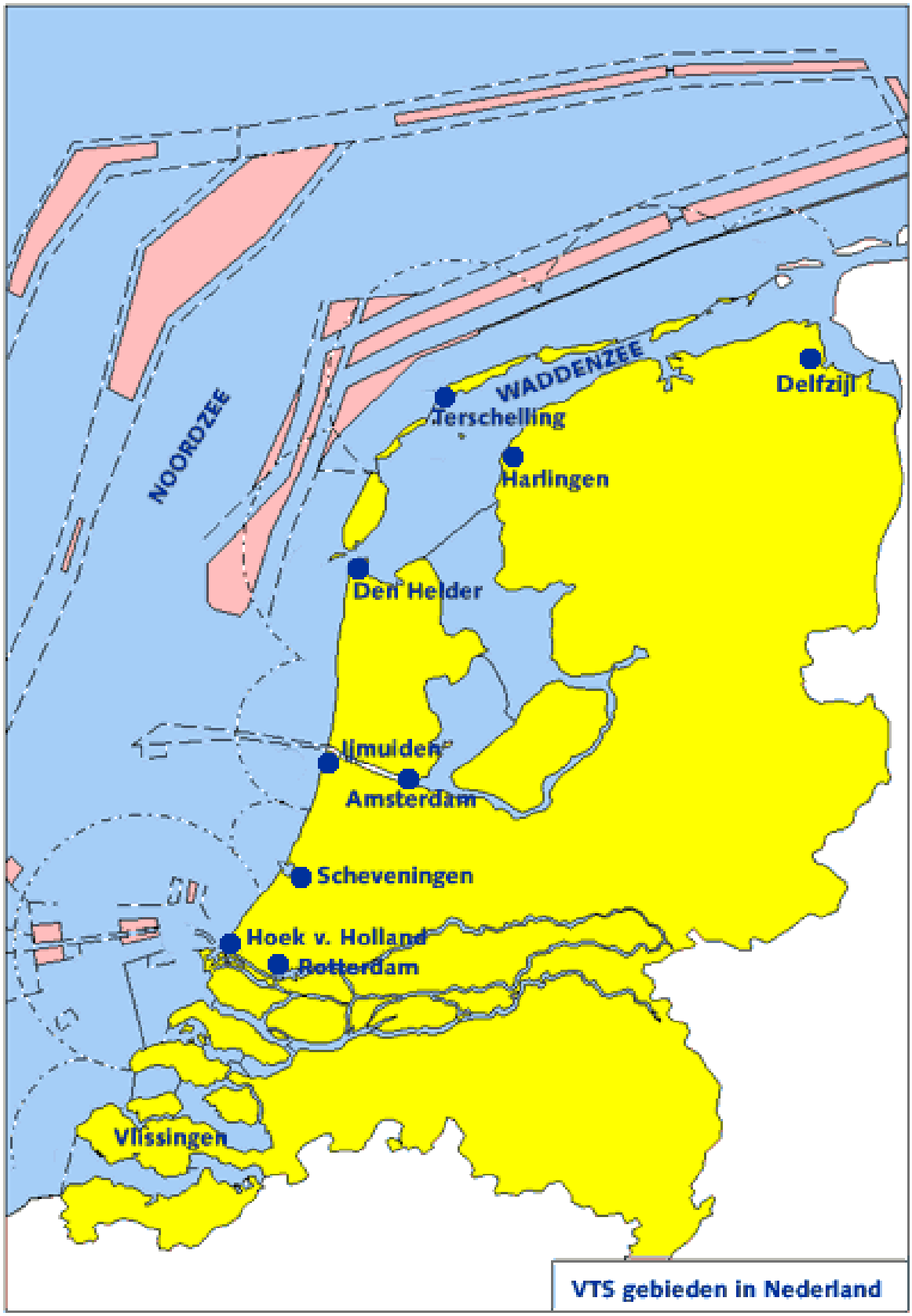
ANNEX **Map of VTS area's in the Netherlands**



Annex 2

АССОЦИАЦИЯ МОРСКИХ ЛОЦМАНОВ РОССИИ
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BPAC

Germany

06/09/00

Dear Sirs,

90% of all accidents at sea take place in the 50-mile offshore zone and most of them occur in straits, narrows, approaches to ports and port waters. Pilotage is the most important factor of providing the safety of navigation in these areas.

Unfortunately, pilotage service in our country has recently come under attack, which can lead to an ecological catastrophe not only in Russia, but in the neighbouring countries as well.

9 years ago when Russian seaports, shipping companies, agencies and towage companies became non-state, in accordance with the Russian legislation pilots began to separate from the new organized private companies and establish their own independent organizations, managed by the pilots themselves. In order to protect their professional interests in 1995 the pilots set up a public organization - the Russian Maritime Pilots' Association (RMPA) which later became the only founder of other pilots' organizations, reorganized in non-commercial companies. Presently the RMPA unites more than 300 professional maritime pilots. (the total number of pilots in Russia is approximately 400. The RMPA pilots working in the non-commercial pilots' organizations of the largest ports of Russia (St. Petersburg, Novorossiysk, Tuapse, Murmansk, Vladivostok, Viborg, Archangelsk, Petropavlovsk-Kamchatski, Nikolayevsk-on the Amur, Kaliningrad, Nachodka) provide pilot services to 83% of all the country's total sea-borne freight turnover. These organizations are managed by the pilots themselves under the supervision of the RMPA and all pilot fees are spent only on providing pilotage.

During these years the pilots' organizations of the RMPA have invested considerable sums of money into their development, creating the infrastructure, training the pilots with the use of modern simulators in accordance with the newest requirements, providing the pilots with all necessary communication and safety equipment according to the highest international standards.

The RMPA provides the pilots' organizations of small and seasonal ports with the same level of technical equipment and training as the other members at the expense of its economically stronger pilots' organizations.

We have managed to preserve and improve the traditional pilotage system in Russia and its personnel by uniting them in the national pilotage service in these very difficult times for the Russian maritime transport.

However, all these efforts and our responsible attitude can be lost in vain, because the Minister of Transport of Russian Federation, Mr. S.O. Frank and the Head of the Navigational Safety Department, Mr. S.V. Palekhov, have set their aim to destroy the country's well-organized pilotage service.

Since March 2000 the Ministry of Transport of Russian Federation has been leading a policy of eliminating the successfully working pilots' organizations of the RMPA.

The first attack was aimed at Novorossiysk, the largest Russian oil port. The Maritime Administration of the port of Novorossiysk hindered the activities of the professional the RMPA pilots' services without giving any explanations and employed navigators to do the pilots' job by means of advertising it in a local newspaper. The Maritime Administration of the port of Novorossiysk issued pilot's certificates for "the new pilots" in a day without any training or on-job practice in the real port conditions.

As a result, tankers with 150 000 tons of crude oil on board are presently being piloted by the people, who cannot be considered pilots accordingly to Russian and international requirements.

The RMPA is taking all possible measures to prevent an ecological catastrophe which is imminent if such "pilots" continue to render pilotage service especially in view of coming autumn and winter storms in Novorossiysk.

However, on 11.05.2000 the Minister of Transport, Mr. Frank, who wants to extend his Novorossisiysk experiment, sent a letter to the Heads of the Maritime Administrations of the largest ports of Russia (including St. Petersburg, Viborg, Kaliningrad) with his demand to organize "state pilots' services" in the ports accordingly to the Novorossiysk model.

In this way hundreds of professional pilots with an average age of 50 years and an average pilot experience of 14 years will be dismissed from their jobs and inexperienced people will be employed instead of them.

Taking into consideration difficult sailing conditions in the Baltic sea and its inland position, any accident with a ship carrying dangerous cargo, however small it may be, can lead to irreparable consequences for all maritime Baltic countries. The Minister of Transport, Mr. S.O. Frank, and the Head of the Navigational Safety Department, Mr. S.V. Palekhov, cannot fail to understand this, but, they are pursuing their own interests and trying to prohibit activities of the pilot organizations of the RMPA which have successfully provided their services in the Baltic sea without any accidents.

We have already appealed and are still appealing to the President, the Prime Minister, the Federal Council to stop this dangerous policy of the Ministry of Transport top officials, but we have not received any result yet. Now we are appealing to the international maritime community and ask to support us in preventing an ecological catastrophe. We insist that inexperienced people who are not pilots accordingly to all international standards must not be allowed to pilot ships.

The President

of the Russian Maritime Pilots' Association **Vladimir I. Egorkin**

Annex 3

Photo of the participants at the BPAC Conference
on board the German Swath vessel