Inland AIS in the Netherlands

State of the art

traffic manager

Peter Stuurman nautical

November 13th 2008

Rijkswaterstaat

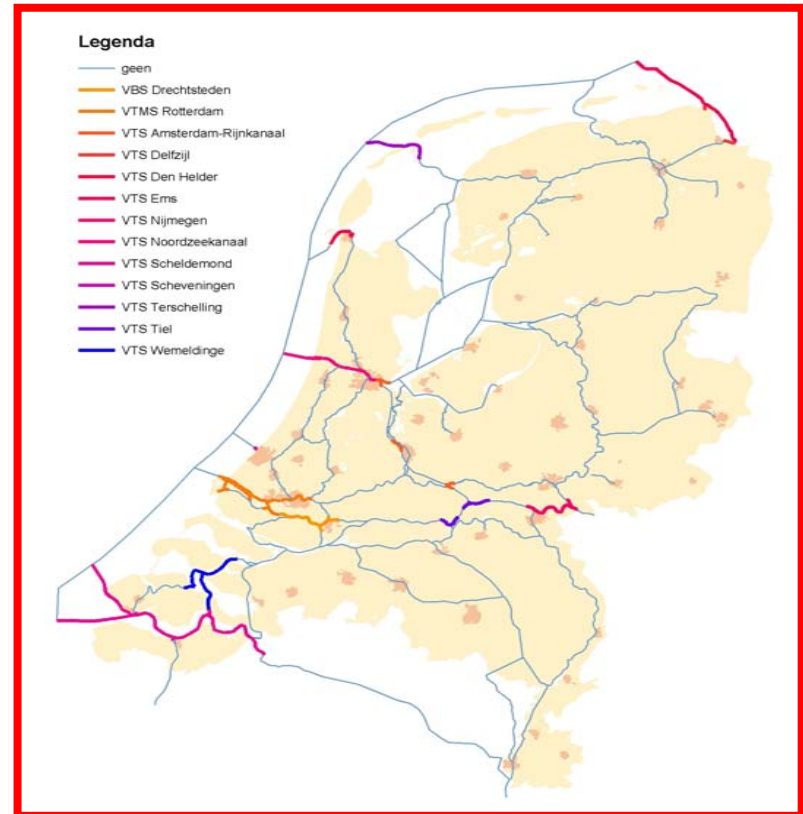# Contents

► **Traffic Management in the Netherlands**

► **What is agreed en decided in the Netherlands**

► **Inland AIS Program in the Netherlands**

Rijkswaterstaat

Traffic Management in the Netherlands

► **Implemented since the middle of the eighties**

► **Active VTS on the route Rotterdam-Germany**

► **Semi automatic reporting and tracking**

Legenda
- geen
- VBS Drechtsteden
- VTMS Rotterdam
- VTS Amsterdam-Rijnkanaal
- VTS Delfzijl
- VTS Den Helder
- VTS Ems
- VTS Nijmegen
- VTS Noordzeekanaal
- VTS Scheldemond
- VTS Scheveningen
- VTS Terschelling
- VTS Tiel
- VTS Wemeldinge

Rijkswaterstaat

Implementation of AIS

► **Inland AIS is an important new tool for traffic management = choice for automatic reporting and tracking**

Rijkswaterstaat

Implementation of AIS

► **Inland AIS is an important new tool for traffic management = choice for automatic reporting and tracking**

► **Inland AIS means a big step forwards for RIS and offers possibilities especially for the following functions**

Rijkswaterstaat
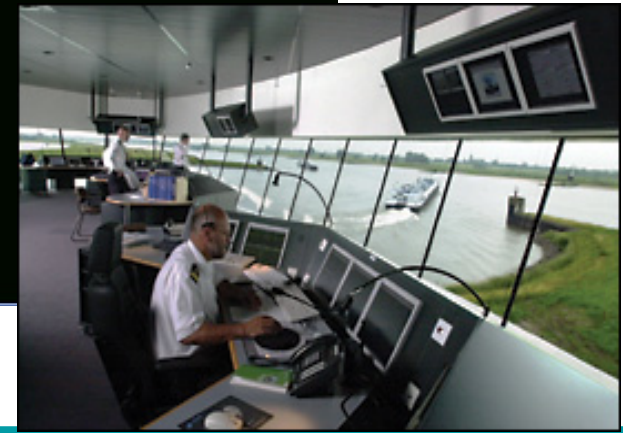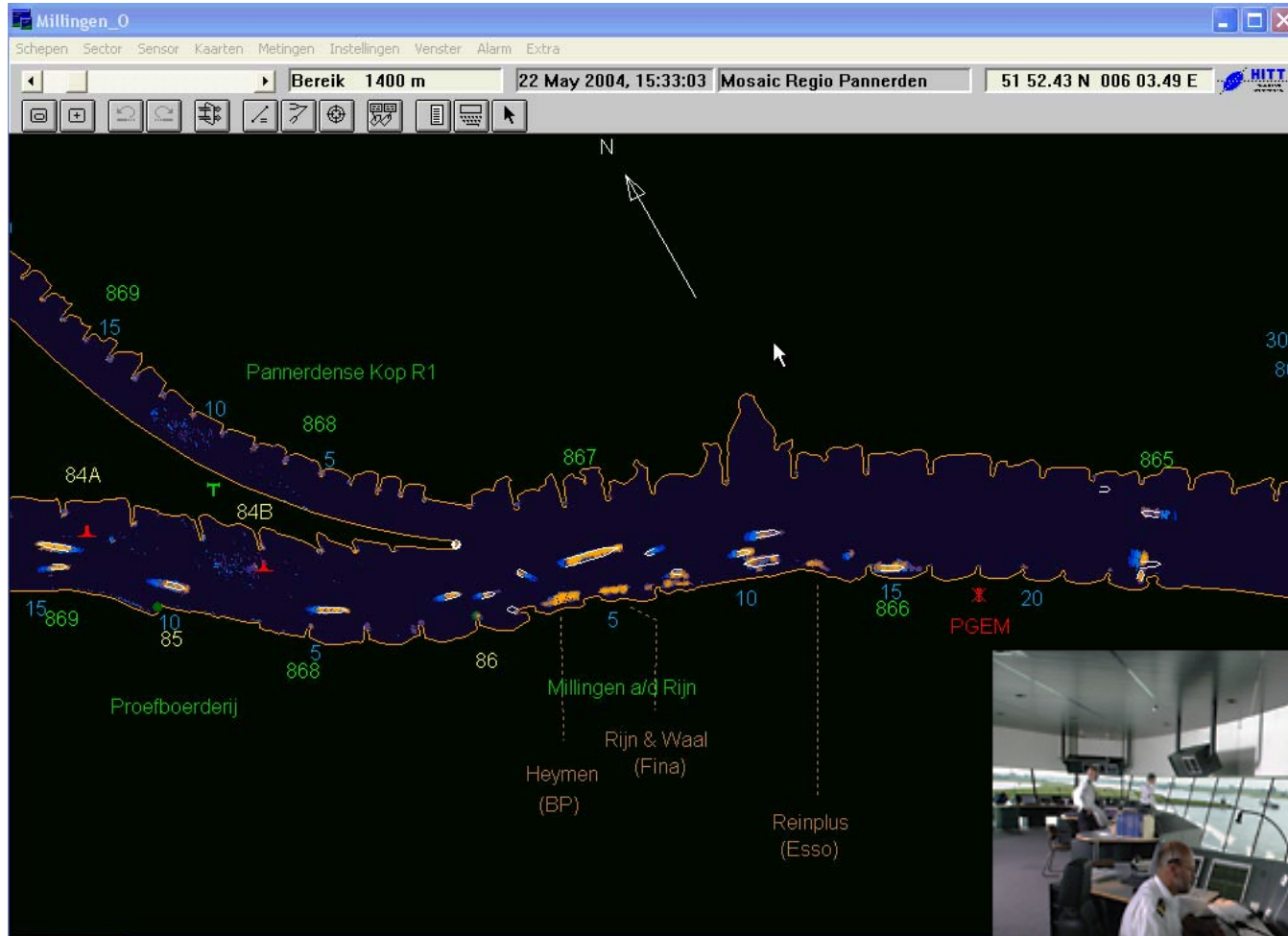
Implementation of AIS

- ► **Inland AIS is an important new tool for traffic management = choice for automatic reporting and tracking**
- ► **Inland AIS means a big step forwards for RIS and offers possibilities especially for the following functions:**
  - ► **Traffic management (TM)**

  - ► **Incident management (CAS)**

  - ► **Logistics (ITL)**

  - ► **Law enforcement (ILE)**
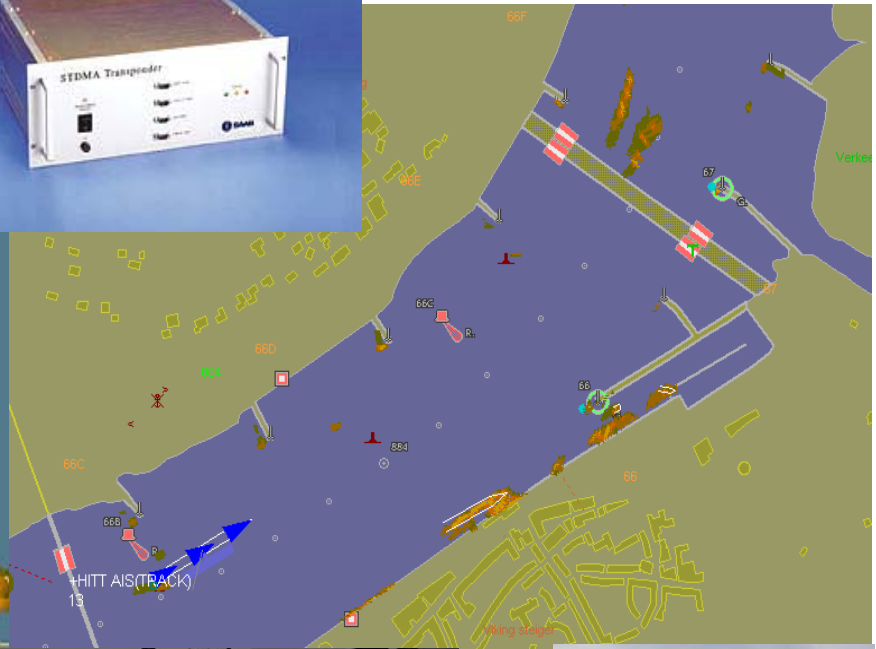
  - ► **Statistics (ST)**

Rijkswaterstaat

Use of Inland AIS on the Traffic centre Nijmegen

Rijkswaterstaat

AIS is additional to radar information

Rijkswaterstaat

AIS radarsensor

+TEST RWS 30
70

+HITT AIS(TRACK)

Rijkswaterstaat

Political situation in the Netherlands

► **2005/44/Implementation of Tracking and Tracing is (yet) not obliged, but when doing so The Standard should be followed**

Rijkswaterstaat

Political situation in the Netherlands

► **2005/44/Implementation of Tracking and Tracing is (yet) not obliged, but when doing so The Standard should be followed**

► **In 2006, Agreement by Minister of Transport and the inland navigation branch-organizations on the promotion of inland waterway transport**

Political situation in the Netherlands

► **2005/44/Implementation of Tracking and Tracing is (yet) not obliged, but when doing so The Standard should be followed**

► **In 2006, Agreement by the Minister of Transport and the inland navigation branch organizations on the promotion of inland waterway transport**

► **With regard to Tracking and Tracing the following point are agreed:**
  ►

Rijkswaterstaat

Political situation in the Netherlands

► **2005/44/Implementation of Tracking and Tracing is (yet) not obliged, but when doing so The Standard should be followed**

► **In 2006 Agreement Minister of Transport and the inland navigation branch organizations on the promotion of inland waterway transport**

► **With regard to Tracking and Tracing the following point are agreed:**
  - ► **both government and branch have chosen for AIS and not for AI-IP**
  - ► **Implementation of inland AIS in the Netherlands**
  - ► **Costs are partly paid by the Netherlands government for all users of Netherlands waterways and nationalities,**
  - ► **With regard to privacy the number of obliged data via inland AIS is (for the time being) restricted.**

Political situation in the Netherlands

► **2005/44/Implementation of Tracking and Tracing is (yet) not obliged, but when doing so The Standard should be followed**

► **In 2006 Agreement Minister of Transport and the inland navigation branch organizations on the promotion of inland waterway transport**

► **With regard to Tracking and Tracing the following point are agreed:**
  ► **both government and branch have chosen for AIS and not for AI-IP**
  ► **Implementation of inland AIS in the Netherlands**
  ► **Costs are partly paid by the Netherlands government for all users of Netherlands waterways and nationalities,**
  ► **With regard to privacy the number of obliged data via inland AIS is (for the time being) restricted to**

position and identification.

Rijkswaterstaat

Other Agreements in the Netherlands

► **Between the waterway police authority and the branch-organisations**

► **For general purposes no use of AIS data is made**

► **Only in case of severe cases and then only with a instruction of the Counsel**

Rijkswaterstaat

AIS on board in the Netherlands

- **Support program in the Netherlands for 2009 – 2011**
- **The cost of buying a transponder is subsidized by the Netherlands Government**
- **With a own contribution of 500 Euro per vessel**
- **The program covers costs of transponder and installation of transponder on board.**
- **But the Program does not cover costs for a link with inland ECDIS viewers or other onboard equipment**
- **The program is for the following vessels:**
  - **Length >20m**
  - **Commercially active**
  - **Proven user of Netherlands waterway network (so for all possible nationalities)**
- **And keep in mind that Inland AIS transponders need to be certified according to the inland AIS test standard**
- **The estimated costs are 18 Million Euro**
- **The estimated total of 8000 vessels can be equipped**

Rijkswaterstaat

Inland AIS implementation international

► **In June 2008 Germany and the Netherlands have made a joint request for support from the TEN-T program for inland AIS introduction.**

Rijkswaterstaat

Inland AIS implementation international

► **In June 2008 Germany and the Netherlands have made a joint request for support from the TEN-T program for inland AIS introduction.**

► **The scope of inland AIS on vessels is now enlarged to 12.000**

Inland AIS implementation international

► **In June 2008 Germany and the Netherlands have made a joint request for support from the TEN-T program for inland AIS introduction.**

► **The scope of inland AIS on vessels is now enlarged to 12.000**

► **Important note:**
  ► **The program can be used for all vessels using the waterway networks of Germany and the Netherlands, so will be regardless of the flag of the vessel.**
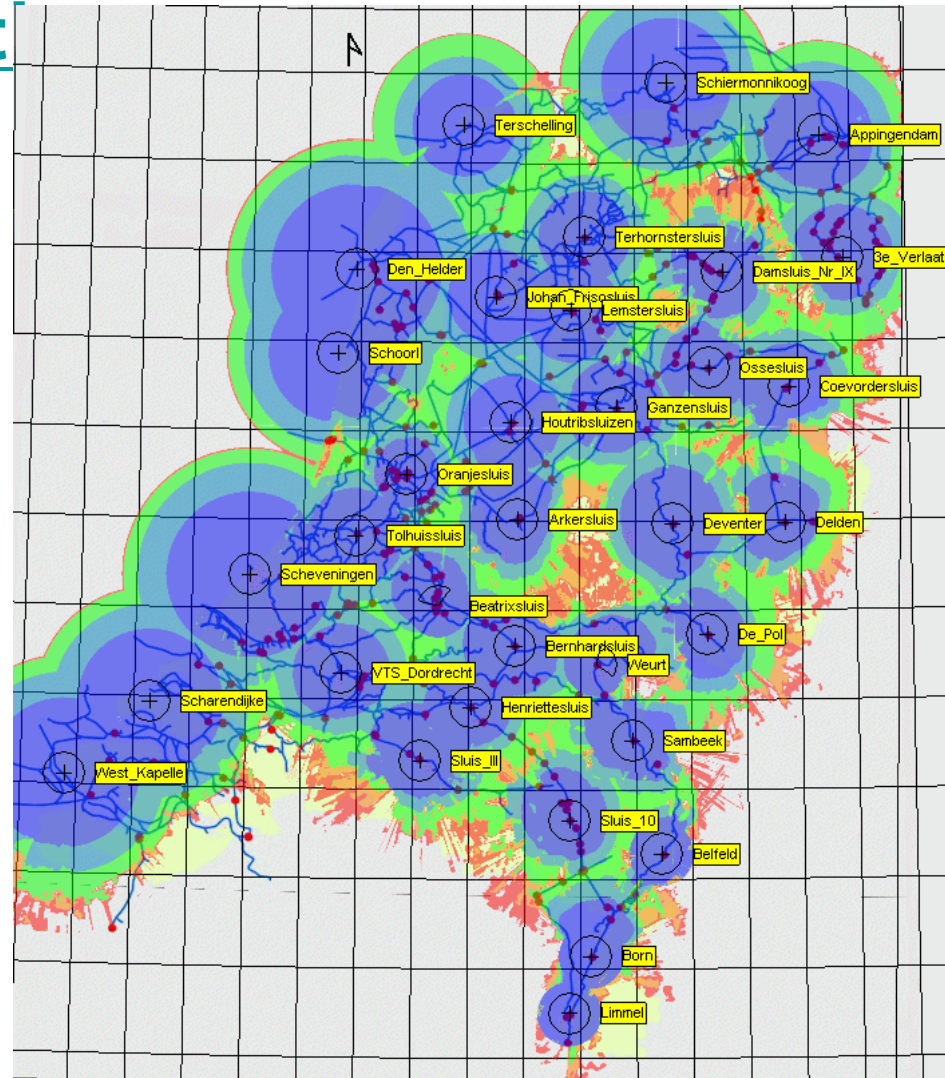
Rijkswaterstaat

AIS shore based infrastructure for monitoring the inland waterway network

- ► **Installation program for the entire area of the Netherlands**

- ► **Estimated project cost are about 30 Million Euro, including data communication and exploitation of the system until 2017.**

- ► **Installation will run between 2009 and 2011.**

- ► **In 2009 the corridor Rotterdam-Germany (Rhine) will be covered.**

- ► **The second corridor is Rotterdam-Antwerpen**

Rijkswaterstaat

Results of first survey of required AIS base stat

Rijkswaterstaat

Pilots RIS in Netherlands making use of inland AIS equipment

► **Bridge Management pilot to manage openings for vessels and a busy tramline in the Hague, starting 2009**

Rijkswaterstaat

Pilots RIS in Netherlands making use of inland AIS equipment

► **Bridge Management pilot to manage openings for vessels and a busy tramline in the Hague, starting 2009**

► **Quay Management in Rotterdam 2009 – 2010, here also the intercommunication of transponders in a busy area will be monitored**

Rijkswaterstaat

Pilots RIS in Netherlands making use of inland AIS equipment

- ► **Bridge Management pilot to manage openings for vessels and a busy tramline in the Hague, starting 2009**
- ► **Quay Management in Rotterdam 2009 – 2010, here also the intercommunication of transponders in a busy area will be monitored**
- ► **Lock management in the South of the Netherlands 2009**

- ► **All pilots will use the possibilities offered by inland AIS**
- ► **First 2 pilots are already tendered**

Rijkswaterstaat

Pilots RIS in Netherlands making use of inland AIS equipment

- ► **Bridge Management pilot to manage openings for vessels and a busy tramline in the Hague, starting 2009**
- ► **Quay Management in Rotterdam 2009 – 2010, here also the intercommunication of transponders in a busy area will be monitored**
- ► **Lock management in the South of the Netherlands 2009**

- ► **All pilots will use the possibilities offered by inland AIS**
- ► **First 2 pilots are already tendered**

- ► **In 2008 all 45 patrol vessels of RWS are equipped with AIS. So it is possible for the VTS centre to have a better coordination**

Looking into the furture .1

Some general remarks with regard to the years to come

Rijkswaterstaat

Looking into the furture .1

Some general remarks with regard to the years to come

► **Within a certain time, transponders will be obliged for most of the inland waterway users.**

Rijkswaterstaat

Looking into the furture .1

Some general remarks with regard to the years to come

► **Within a certain time, transponders will be obliged for most of the inland waterway users.**

► **Skippers must be aware that a transponder is only a system to support the navigation, it enlarges his view tot a certain extend but it is not replacing the radar and or the visual sight.**

Rijkswaterstaat

Looking into the furture .1

Some general remarks with regard to the years to come

► **Within a certain time, transponders will be obliged for most of the inland waterway users.**

► **Skippers must be aware that a transponder is only a system to support the navigation, it enlarges his view tot a certain extend but it is not replacing the radar and or the visual sight.**

► **The same is true for VTS centres, VTS operators should be aware that on some vessels equipment is not working correct and the should be aware of some position inaccuracies. (satellites)**

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

► **Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre**

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

- ➤ **Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre**
- ➤ **Makes it possible to anticipate on certain traffic situations long before**

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

► **Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre**
► **Makes it possible to anticipate on certain traffic situations long before**
► **To make a better use of restricted waterways**

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

- ► **Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre**
- ► **Makes it possible to anticipate on certain traffic situations long before**
- ► **To make a better use of restricted waterways**
- ► **A better (and possible in future an automatic) planning of locks and bridges**

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

- ► **Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre**
- ► **Makes it possible to anticipate on certain traffic situations long before**
- ► **To make a better use of restricted waterways**
- ► **A better (and possible in future an automatic) planning of locks and bridges**
- ► **To make a long term voyage planning**

Looking into the furture .2

Whate is possible with AIS:

- ► **Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre**
- ► **Makes it possible to anticipate on certain traffic situations long before**
- ► **To make a better use of restricted waterways**
- ► **A better (and possible in future an automatic) planning of locks and bridges**
- ► **To make a long term voyage planning**
- ► **To deliver a real-time overview in case of calamities resulting in a better incident management**

Rijkswaterstaat

Looking into the furture .2

Whate is possible with AIS:

► Monitoring vessels and vessel movements and presenting those on a clearly structured base in a local, regional or national centre

► Makes it possible to anticipate on certain traffic situations long before

► To make a better use of restricted waterways

► A better (and possible in future an automatic) planning of locks and bridges

► To make a long term voyage planning

► To deliver a real-time overview in case of calamities resulting in a better incident management

► Data processing can be done for the greater part automatically
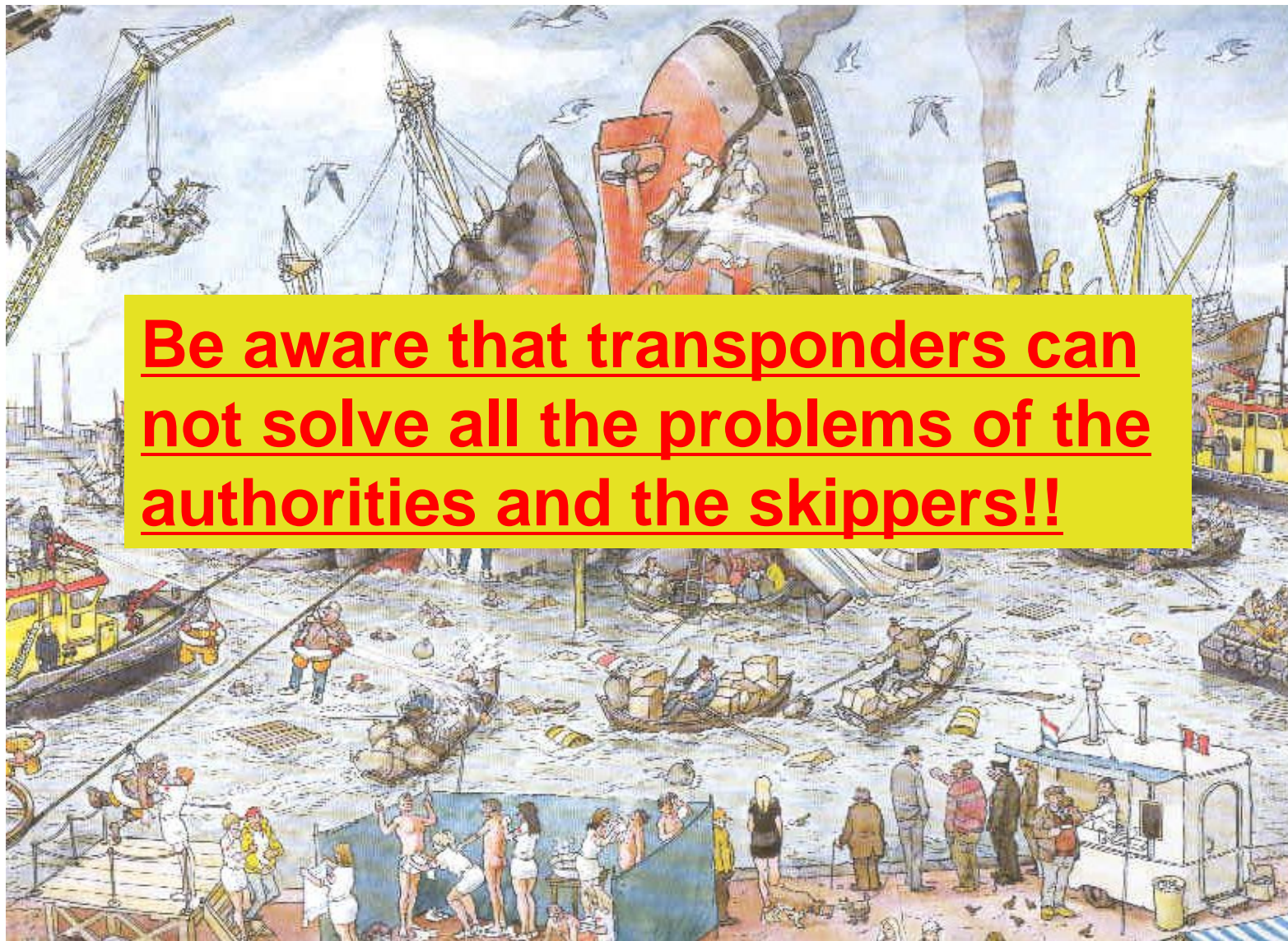
Be aware that transponders can not solve all the problems of the authorities and the skippers!!

Rijkswaterstaat