HVCC
Hamburg Vessel Coordination Center

Company Presentation
Unique selling proposition of HVCC

Summary

Set-Up
Unique partner structure ensures sustainable and customer-oriented operation

Neutral Position
Holistic port call optimisation and utilisation of terminal and port infrastructure

24/7 operational
Proactive intervention of experienced HVCC staff at any time in case of operational disruptions

Tailor-made
Software solutions that fit HVCC partners’ requirements
Unique selling point of Port of Hamburg
Overview organisational structure of HVCC

- Successful cooperation of HHLA and EUROGATE since 2004
- Independent limited company founded in 2009 (FLZ Hamburger Feeder Logistik Zentrale GmbH)
- Since November 2015 registered as HVCC Hamburg Vessel Coordination Center GmbH

Departments:
- **Feeder Logistics Center (FLC)**
  Coordination of vessel approach, rotation- and stow-planning of feeder vessels and barges
- **Nautical Terminal Coordination (NTC)**
  Operational coordination of ultra-large vessels during the approach and departure
Services of HVCC
Enabling the development towards a connected port

Coordination
- Coordination of inbound and outbound port approaches
- Issuing passage plans
- First registration with terminals as well as berths and port dues with responsible authorities
- Central stow planning for feeders and barges
- 24/7 supervision of operating and port rotation
- Ordering service providers in the port (pilots, tugs, linesmen)

Collaboration
- Port Dashboards
- Barge-Plattform
- Plattform PRISE (berth registration with harbour master, ship information Hamburg)
- Projects connecting with previous / next ports and carriers
Geographical focus of coordination service of HVCC
Coverage for large vessels, feeders and barges
Feeder Logistics Center
Exemplary rotation of a feeder vessel in the port of Hamburg
Positive effects of a central coordination service
Multiple bilateral communications for feeder call

Feeder communication in the port without FLC coordination

- Rotation planning / Berth availability
- Waiting berths
- Cargo availability / late arrivals
- Office hours land organisation / agencies
- Additional cargo / cancellations
- Actual bayplans
- Organisation shifting / departure Hamburg

Carrier 1
Carrier 2
Carrier 3
Authorities
Pilots
Tugs
Boatmen

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FLC: Optimisation of vessels’ port call and utilisation of terminal infrastructure

FLC established port-communication platform

- Stow and rotation planning for feeder and barge vessels
- Continuous communication with all stakeholders of vessel call
- Ad-hoc changes
- Checking of cargo availability
- Ordering of service providers
Working areas and service of FLC

Overview

Planning (stow planning)
- Receiving of stow instructions, checking cargo availability
- Ad-hoc adjustments of stow instructions (e.g. due to change of rotation / high quantity of expected cargo)
- Forwarding of checked and adjusted stow plans to the terminal
- Continuous and pro-active communication with the carrier

Operating (rotation planning)
- Permanent monitoring of vessel positions and pro-active intervention in case of delays
- Direct access to terminal’s operational systems and continuous communication with duty manager at the terminal resulting in real-time operational status picture
- On-time order of pilots, tugs, boatmen
- Arranging waiting berths
Advantages of 24/7 service of FLC

Overview

**Reeder**
- FLC takes operational decisions in substitution of the carrier.
- Optimisation of rotations and port stay
- FLC has direct access to terminal’s operational systems
- FLC orders of pilots, tugs, boatmen on-time
- Carrier’s staff can focus on core business

**Terminal**
- Single point of contact for all operative concerns around the feeder vessel
- Less interruptions of cargo operations or waiting times due to checked working programs and stowage plans
- Optimised berth utilisation through coordination of feeders and barges by one central instance

**Port**
- Optimised use of port’s infrastructure
- Relief of authorities (e.g. VTS) regarding requests on vessel’s rotation
- HVCC/FLC as a unique feature of the Port of Hamburg
What we achieved in 2019
Added value through FLC

4,100 terminal calls of feeder vessels and barges coordinated

1,800t bunker savings*
* Savings for 2,000 vessel operating hours with average consumption of 21.5t at 16kn

approximately 2,000 vessel operating hours saved
Nautical Terminal Coordination
Without NTC: No consideration of knock-on effects

Former communication: two-way

- Two-way communication between each of the following: Carrier/Agent, terminals, Vessel Traffic Service Center and service providers
- The knock-on effects of operational requirements are not systematically taken into account
- The former communication corresponds to the situation for feeders prior to introduction of the HVCC department FLC
NTC: producing a coordinated operationally viable situation

Communication channels of NTC partners

- Aim: pooling communication channels, recognising knock-on effects in good time in order to find optimal operational solution to any traffic situation
- New collaborative process: no more pushing through individuals’ interests
- Cooperating ports are actively involved via recently implemented interface and dashboards
- Operational, two-way communication channels between the shipping company and its terminal and between the shipping company and the Vessel Traffic Service Centre remain unaffected
NTC: an initiative of the container terminals with partner terminals in the port

Overview of terminals in the Port of Hamburg

NTC Partner
1. EUROGATE Container Terminal Hamburg (CTH)
2. HHLA Container Terminal Burchardkai (CTB)
3. HHLA Container Terminal Tollerort (CTT)
4. HHLA Container Terminal Altenwerder (CTA)
5. Hansaport
6. Unikai
7. Blohm + Voss
8. Cruise Center Altona
9. Cruise Center Steinwerder
10. Cruise Center HafenCity

11-29: Other terminals, affected by passage restrictions

70% of all vessels concerned by passing restrictions call at NTC partner terminals
Working areas and services of NTC

Überblick

Operating
- Early identification of potential interdependencies on River Elbe
- Dynamic development of solutions after consulting with terminals, carriers, agents, pilots and vessel traffic centres to optimise passage to Port of Hamburg
- Issuing recommendations for traffic situations

Administration
- Observation of vessels heading to Port of Hamburg on their rotation in Northern Europe
- Tracking of vessels in previous ports
- Consideration of forecasts for wind, weather and water levels
- Calculation of passage windows
- Providing carriers / vessels with navigational information for passage to / from Port of Hamburg
Benefits from 24/7 NTC services

Overview

Carrier
- Unique NTC services results in optimised passage towards Port of Hamburg
- Bunker savings and reduction of emissions
- Port call optimisation

Terminal
- Optimised planning of terminal resources due to reliable arrivals and departures of vessels
- Central data aggregation and coordination

Port / Authorities
- Efficient use of port infrastructure
- Holistic overview through inclusion of all relevant ship types and sizes
- Obtaining an operational solution for passage conflicts as a decision base for sovereign tasks

Service Providers
- Overview of overall traffic situation
- Optimised planning of resources (e.g. lines men or tug boats)
- Improved services quality to customers
What we achieved in 2019
Added value through NTC

3,200 terminal calls of large sized vessels coordinated

3,800 passage plans distributed

22t bunker / 66t CO2 savings per voyage*

* Average savings on route from Rotterdam to Hamburg when reducing speed from 18kn to 14kn.
Connecting the Port Community through software solutions
**HVCC-Software shows transparent traffic situation**
Tailor-made software solutions for partners

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<td>Project owner</td>
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**FUNCTIONAL OVERVIEW**

- **Schedules / vessel’s data**
- **Gantt chart overview**
- **AIS-data**
HVCC offers a Port Collaboration Platform

One single truth across all stakeholders
HVCC-Dashboard as a synchronous planning base
Demand-oriented development of functions

- Extensive data and information sources
- Coordinated traffic situation (time and geographically)
- Reducing energy consumption and emissions with optimised approach
- Content adaptable to individual needs
- Direct data exchange with previous / next ports
- Direct ordering of services
Example: Direct link to previous and next ports
Quick response in case of operational changes
Barge platform: Increasing handling quality and schedule reliability

Current project: motivation and goals

- Minimising coordination efforts between terminals and barge operators through early transparent planning
- Synchronous data between all involved stakeholders
- HVCC can consolidate volumes and schedules proactively
- Direct interface with authorities
- Co-financed by City of Hamburg