CURRICULUM VITAE

Name:	Van der Tak	**First names**:	Cornelis
Year of birth:	1949	**Nationality**:	Dutch
Present position:	Maritime Traffic and Safety Consultant		

Key qualifications: Developer of the SAMSON-tool box that has been applied in many risk assessment studies.

Education:	1965-1970, MSc. Applied Mathematics, Technical University Delft
Languages:	Dutch, English and German

Employment record:

2011-	Maritime Traffic and Safety Consultant
1982-2011	Senior Project Manager of MARIN's Nautical Centre MSCN
1975-1982	Project Manager, Netherlands Maritime Institute.
1972-1974	Researcher, The Netherlands Ship Research and Planning Centre, TNO.
1970-1972	Officer Royal Dutch Navy

Research record:

1985-pres.	Fast-time simulations including man-machine interfaces.
1981-pres.	Research on the improvement of the assessment of the safety of maritime traffic. Many models have been developed and applied in many studies.
1975-1977	Optimisation techniques during preliminary design.
1974-1984	Development of CARP, Computer Aided Routing of Pipelines in a ship's engine room.
1972-1974	Production Planning methods for shipbuilding industry.
1969-1972	Optimisation of the Nuclear Reactor Shield.

Record of most relevant projects:

2010	Risk study for a pipeline between the Netherlands and the UK
2010	Safety of a number of pipelines and cables in the NorhSea
2008-2010	Long term policy for wind farms in the North Sea
2009	Quantitative Risk Assessment study for LNG transport to Zeebrugge
2009	Wind farms in Belgium part of the North Seas
2009	Wind Farms in France part of the North Sea
2008	Risk for a pipeline crossing the Traffic Separation Scheme

2008	Risk analysis Waddenzee: Development traffic database and first analysis traffic flows
2008	Development of modules for the EU-project MarNIS
2007	Effectiveness of SAR capacity in the Netherlands
2007	Risk Assessment for the transport of LNG to Goldboro, Canada
2007	Risk Assessment for the transport of LNG to Le Verdon, France
2007	Risk Assessment for the transport of LNG to Eemshaven
2006	Effectiveness of salvage tugs in the Netherlands
2006	Risk Assessment for the transport of LNG to the Papegaaiebek (Rotterdam), a terminal in Rotterdam
2006	Risk Assessment for the transport of LNG to the Kop van de Beer (Rotterdam), a terminal in Rotterdam
2007	Risk Assessment for a Belgium and a number of Dutch offshore wind farms
2006	Risk Assessment for the future traffic separation scheme for the approach to Rotterdam
2005	Risk assessment for 11 offshore wind farms for different companies for permission to build the wind farm in the North Sea
2005	Risk Assessment study for the two main ports of Malta
2005	Risk assessment for the environmental impact study for eight potential wind farms in the Dutch EEZ
2004-2008	MARNIS, Maritime Navigation and Information Services, FP6 R&D project. Our main participation is in Work package “Risk and Environmental Impact Analysis”.
2002-2004	EMBARC, European Maritime project for Baseline and Advanced Regional and Coastal traffic management and information services. Our task is to develop a Formal Safety Assessment tool to assess the consequences of strategic change in traffic management.
2003-2004	SAFESHIP an European Project of the 5 FP. The objective is to reduce the risks of ship collisions with offshore wind farms by development of appropriate cost-effective technologies and methodologies, thereby reducing the production costs of offshore wind energy and removing development barriers.
2004	Collision risk studies for a number of offshore installations
2004	Impact of deepening of the Western Scheldt on the nautical risk
2003	Transport of dangerous goods in bulk across the Dutch part of the North Sea for the development of a new contingency plans
2003	Collision risk assessment for two wind parks in the Baltic Sea for WSD-Nord
2003	Risk study for the BritNed cable between Maasvlakte and the UK
2003	Collision risk assessment for all manned NAM platforms in the North Sea
2003	Risk analysis for ships approaching a harbour. A decision support system to provide a ship with the optimal nautical service (none, VTS, LOA or pilot), when entering or leaving a port.
2003	Collision risk assessment for a platform of Wintershall-Clyde Petroleum in the North Sea
2002-2003	Collision risk assessment for a lot of TotalFinaElf platforms in the North

	Sea.
2002	Safety Assessment for the offshore wind park “Meerwind” in the German Bight, including the cable routes from the wind farm to the coast.
2002	Risk assessment for the LNG transport to the port of Ferrol.
2002	Analysing and processing of the data of 250 traffic observation flights, the VONOVI flights from 1999-2001 above North Sea.
2001	Marine traffic related threats to the NAM-pipelines on the North Sea. The threats considered were, a ship sinks on a pipeline, container or other object sinks on a pipeline, an anchor is dropped on or hooks behind a pipeline, damage by fishing activities.
2001	Ship-Platform Collision Risk Assessment for nine planned platforms on the North Sea for different operators.
2001	The impact of the introduction of the clearway-system, space that can not be used for offshore activities, on the shipping safety and economics on the North Sea.
2000	Safety Assessment of three potential locations for an Offshore Windpark of E-Connection.
2000	Collision Risk Assessment for a new bridge across the Shannon river in Ireland.
2000	Update T0-Emissions. The emissions to the environment by sea shipping at sea, assessed by DGG in 1997 have been updated. Besides some of the methods used are improved.
2000	Evolution of the shipping safety to 2030 for different growth scenarios in the Scheldt for the development of a long-term policy for the Scheldt Estuary.
1999-2000	Assessment of the Collision Risk for different locations of a Near Shore Windpark in the North Sea
1999-2000	Monitoring Nautical Safety / The 0-base. A first step to a consistent safety policy for the inland waterways. A database with inland waterway and sea shipping movements across the inland waterways has been built up. Casualties are related with to ship movements and waterway characteristics.
1999	RACER. Safety study for the maritime traffic in the Irish Sea.
1999	Assessment of the Risk for different layouts of the port of Kishon.
1998	Collision Risk Assessment for an offshore platform in the North Sea.
1999	Collision Risk Assessment for the Bridge over the Surinam River.
1997-1998	POLSSS (Policy for Sea Shipping Safety). An assessment of the costs and effects of policy instruments concerning Traffic measures, Waterway Marking, Piloting, VTS, SAR and Contingency Planning.
1996	Assessment of the effect of several alternatives on the safety of the shipping on the river Maas. The infrastructure of the Maas will be changed to reduce the probability of a flood and to stimulate the shipping.
1995	Assessment of the safety level for the traffic on the river Waal for the present situation and after the introduction of VTS and/or other hydraulic measures. Also the effect of several traffic scenarios is studied.

1992-1995	Validating maritime traffic modules. Integration of MANS and VONOVI traffic models. Development of risk assessment tools. Assessing the effect of maritime traffic measures.
1992-1994	EURET 1.3 TAIE. Task leader of tasks "Casualty Database" and "Cost Benefit Analysis". Participant in the tasks "European Traffic Databank" and "Historical data on local traffic".
1990-1992	Several studies for assessing the safety level of new platforms and pipelines.
1990	Development of the traffic model, part of the Traffic and Casualty model. This model is developed for the Dutch Ministry of Transport, Public Works and Water Management in the framework of the project "Safe Traffic over Water" to quantify the safety levels on the Dutch inland waterways in an objective way.
1990-1992	VONOVI, Traffic Research North Sea Visual Identification. Determination of maritime traffic on the Dutch part of the North Sea based on aerial observations.
1990-1991	MANS, Management Analysis North Sea. Risk assessment study based on maritime traffic and casualties.
1989	Ekofisk, towing and installation training. A PC-program was initially made in order to familiarise the trainees with the operation to be performed. However, it was an excellent tool for analysing different strategies. Therefore, Peconor used the program for further analysis after the training up to the moment of installation.
1986-1988	Development of NAVSIM. This is a fast time simulation program dealing with the complex visual information processing, control and decision making, behaviour of the human navigator.
1986-1987	Development of a method for improving the ship handling and the planning of the resources in the North Sea canal to Amsterdam.
1985-1990	The first assessment of the transport of dangerous goods across the North Sea has been executed in 1985. This assessment has been improved in the next years based on more detailed information.
1982-1985	Determination of the density and composition of the maritime traffic flows in the European waters (COST 301 project). Assessment of safety levels for different sea areas.
1974-1984	Development of CARP, Computer Aided Routing of Pipelines. In 1979 visit to the Shanghai Shipbuilding Technology Research Institute. They had implemented the published method in their production process.
1975-1978	Different projects for Rijn Schelde Verolme: - Optimisation of the main dimensions of ships during the preliminary design. - Non-linear transformations of body plans.
1976-1977	Assessment of the effect of braking shields and/or drags on the trajectory of the ship during its launching; carried out for the launching of a 70,000 DWT Bulk-carrier in the very restricted water at the Verolme Cork Dockyard in Ireland.
1973-1974	Implementation of production planning and controlling methods on Verolme Dock and Shipyard Company.
1969-1972	Optimisation of the composition and configuration of the shielding of nuclear powered submarines.

Publications:

2010	Study on collision avoidance in busy waterways by using AIS data Elsevier, February 2010
2009	Risk Awareness; a model to calculate the risk of a ship dynamically Marine Traffic Engineering, October 2009, Malmö,
2009	Development of a MOS center and its role in dynamic routing Marine Traffic Engineering, October 2009, Malmö,
2007	LionGas LNG Terminal in Rotterdam Nautical and societal QRA, Maritime-Port Technology ad Development Conference MTEC, September 2007, Singapore
2006	“Lion Gas LNG Terminal in Rotterdam; A new approach to nautical risk analysis” Hydrocarbon Engineering, November 2006
2006	“Navigation risks in ports”,5th Congress of the International Harbour Masters Association, Malta
2005	“Comparison of the different models; harmonized assumptions”, Seminar Maritime Safety of Offshore Wind Farms, January 2005, Wageningen, The Netherlands
2003	“The importance of a risk based index for vessels to enhance maritime safety”, 10th IFAC Symposium on Control in Transportation Systems, Tokyo, Japan
2003	“Risk Indices for Vessels”, Maritime Safety and Risk Analysis Conference, Halifax, Canada
2003	“Research and Development Activities for Minimisation Investments & Insurance Costs and Environmental Risks of Offshore Windparks in 20-25 M Deep Seawater”, European Wind Energy Conference Madrid.
2003	“L’importance d’une approche de la sécurité maritime fondée sur les modèles d’évaluation des risques”, Navigation, Publiée par l’Institute Français de Navigation, Vol 51, No 201, Janvier 2003
2001	"Policy for See Shipping Safety", presented at the 2nd International Conference on Collision and Grounding of Ships, Copenhagen, Denmark
2000	"Safety Assessment in Ports", presented at the XII International Conference on Shipping and Shipping Research, Venice, Italy.
1999	"Safety Assessment in Ports", presented at 2nd International Harbourmasters Association Congress, Dubai.
1996	"Safety Management Assessment Tool (SMART)", presented at the 8th International Symposium on Vessel Traffic Services, Rotterdam, The Netherlands.
1995	"Ship Offshore Platform Collision Assessment (SOCRA)", presented at the 5th International Conference Loss Prevention in the Oil and Gas Industry, Aberdeen, United Kingdom.
1992	"Safety of platforms in the North Sea", presented at the "1st World Congress on Safety of Transportation", Delft, The Netherlands.
1990	"Fast Time simulation Models for the Assessment of Manoeuvring Performance", presented at the 9th Ship Control Systems Symposium, Bethesda, Maryland, USA.
1990	The assessment of operational requirements of visual aids to navigation using a model of the human navigator", presented at XIIth Conference of the International Association of Lighthouse Authorities, Veldhoven, The Netherlands.

1988	"Model of the human observer and controller of a dynamic system", presented at the 3rd IFAC/IFIP/IEA/IFORS Conference on Man-Machine Systems, June 1988, Oulu, Finland and IEEE SMC conference, China.
1988	"Maritime traffic handling planning of resources in the North Sea canal to Amsterdam", presented at 9e International Harbour congress, Antwerp, Belgium.
1987	"The application of Man-Machine Models in the Analysis of Ship Control", presented at the Eight Ship Control Systems Symposium, The Hague, The Netherlands.
1987	"The maritime environment, traffic and casualties", "COST 301 Final Report", Annex to Main Report: Volume 2 COST 301/FR 3.02(AN 1014), Issue B/03/87.
1986	"The application of Man-Machine Models in maritime research", presented at the 22nd Annual Conference and Manual Control Dayton, Ohio (USA).
1978	"Optimal routing of pipelines in a ship's engine room", Lecture for the AUTOCON Users Club, Rockanje, The Netherlands.
1977	"Optimisation Techniques in Shipbuilding Industry", Lecture for the Royal Institute of Engineers, The Hague, The Netherlands.
1976	"Model to calculate a maritime risk criterion number", presented at the International Navigational Congress in Boston, MA, August. This presentation has also been published in: Navigation, Journal of the Institute of Navigation, Vol. 23, No. 4, Winter 1976-77. The Journal of Navigation, The Royal Institute of Navigation, Vol. 30, No 2, May 1977.
1976	"The optimum routing of pipes in a ship's engine room", presented at The Second International Conference on Computer Application in the Automation of Shipyard Operation and Ship Design II, North-Holland Publishing Company, The Netherlands.