



AD NAVIGATION



To a world filled with compromise  
- we make no contribution



## AD Navigation AS

AD Navigation AS markets and supports GPS based systems that determine high precision geographic locations, heading and attitude. The systems are specially designed for the marine market.

Our experienced team also offers consulting services for system customization and OEM integration within survey and navigation applications.

The AD Navigation AS head office is located in Sarpsborg, Norway.

Since 2005, AD Navigation has been part of the Dutch HITT Group of companies. HITT specializes in VTMS systems and related products.



## Products and Services

AD Navigation instruments are customised for real time positioning and navigation. They provide the highest possible

- Accuracy
- Reliability
- Stability

More specifically, AD Navigation offers the following portfolio of high-end GPS and GPS/GLONASS based technology and services:

- GPS/GLONASS RTK equipment customised for hydrography and dredging applications
- Portable Pilot Unit for high precision pilot assistance during approach and docking operations
- Reference station systems for local or network based RTK and DGPS
- Attitude systems for high demanding data acquisition and gyro-calibration.
- Retailing of third parity OEM components, including consultancy services for OEM integrators.



We develop our products and services in close collaboration with our clients. We have references from such exacting customers as

- The Dutch Pilot Organisation
- The Port of Rotterdam authorities
- NATO Foracs
- The Norwegian Navy
- The US Navy



In addition to development, marketing and support of our own products, AD Navigation trades satellite positioning systems from Javad Navigation Systems, Topcon and CSI Wireless. We offer personal support for all our products, ensuring that our customers always have their systems up and running one hundred percent.

## Say NO to wrong Fix!



Reliable Instruments are the Key in all Navigation and Data Acquisition.

Many users of high-end GPS equipment still accept the unreliable performance of their existing GPS positioning systems. Compensating for inaccuracy can be both time consuming and a waste of valuable resources. Why accept poor performance when there is a better alternative?

In the Port of Rotterdam for example, the technology from AD Navigation has had more than 10,000 hours of operation under the most demanding conditions imaginable. Not one single incident has been reported. The time to RTK fix is usually only a few seconds for the AD Navigation receivers. Thanks to AD Navigation the Rotterdam Port Authorities are now able to maximize the usage of their survey vessels.

*“We have been using various RTK positioning systems for almost a decade, and up until now, have seen inconsistent GPS performance. With the DC-200 series RTK receivers from AD Navigation, our down time as a result of poor GPS/RTK performance and satellite drop-outs is now literally reduced to zero, even under the most difficult satellite tracking conditions close to large vessels, buildings, bridges and container cranes.”*

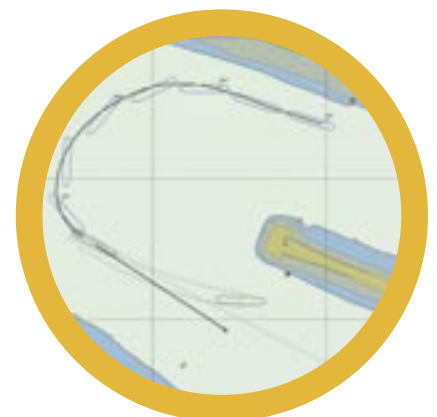
Jeroen van Reenen  
Head of the Hydrographic Department  
Rotterdam Port Authorities

### Advantages of combining GPS and GLONASS

AD Navigation offers positioning systems that seamlessly combine GPS and GLONASS. GLONASS is the Russian global positioning satellite system equivalent to the American GPS.

- Tracking GLONASS gives access to a total of 45 GPS/GLONASS positioning satellites.
- Our GPS/GLONASS systems are tracking on average 12-15 satellites, in average 50% more compared to a plain GPS system.
- Adding GLONASS to GPS improves all aspects of RTK operation (reliability, stability, time of RTK initialisation)

We believe that we can deliver the best products in the business - let us prove it to you!



## Reference projects:

### Precise Piloting - Dutch Pilot Organization

The Dutch Pilots Organization are probably hosting the world's most demanding pilots. To increase efficiency and safety during challenging jetty manoeuvres and navigating in confined and tidal waters, Dutch Pilots are standardising on the ADX PPU system from AD Navigation. The ADX PPU system is developed in collaboration with the Dutch Pilots to provide independent navigation data at the highest possible level of accuracy and reliability.



### Dredging - VanOrd ACZ

Precise Positioning close to constructions, cranes, buildings and bridges requires state of the art navigation equipment for proper work. The world leading dredging company Van Oord ACZ has chosen the DC201 GPS/GLONASS L1/L2 RTK receiver for the dredging and survey work at the massive Pont de Normandie in France.



Why? Because plain GPS RTK systems are insufficient in poor tracking environment.

### GPS based Gyro calibration - NATO Foracs

GPS based attitude determination is the most reliable, accurate and efficient way to calibrate gyroscopes. AD Navigation AS and NATO Foracs has developed the methodology to make reliable gyro calibration on navy ships, and only within some minutes the system is operational. The GPS based attitude system supplied by AD Navigation is capable of providing heading readings 10 times more accurate compared to a standard gyro. The performance of the attitude system is complying with the NATO Foracs demands to their benchmark systems due to performance and portability.



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GROUP OF COMPANIES

*For more references, product information and case studies - please visit our website [www.adnav.com](http://www.adnav.com)*

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