



Navicom Dynamics

Innovate | Integrate | Communicate



HarbourPilot Fixed

Total situational awareness, at your fingertips.

Navicom Dynamics' Precision Navigation system-the **HarbourPilot Fixed**, is the ultimate tool for total situational awareness to ensure safe navigation of vessels.

Receive accurate and real-time vessel dynamics information on any number of screens to equip the vessels' navigational crew and key personnel and synchronise operations and communication.

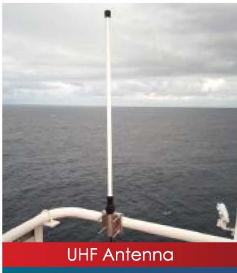
HarbourPilot Fixed is user-friendly and becomes a familiar secondary source of reliable and accurate information which is independent of the ships' navigational systems.

Facilitate critical decision making during ship-handling and improve safety of crucial manoeuvres with the **HarbourPilot Fixed**.

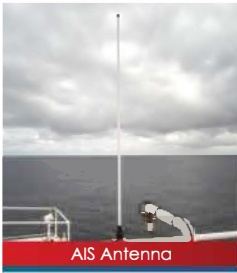
Easily add-on shore based data from a server to enhance the information modules to include weather, tides, DUKC and other critical data to support navigation.

Acts as a fall back navigational system that can optionally include battery back-up to provide a totally independent navigational tool in case all else fails.

On-board antenna setup



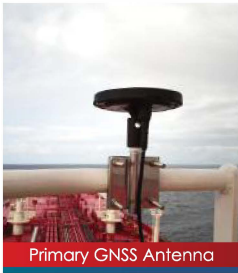
UHF Antenna



AIS Antenna



Secondary GNSS Antenna



Primary GNSS Antenna

HarbourPilot Fixed



FRONT



BACK

Performance Features & Usability

Independent of vessel	The system is entirely independent of the vessel. It is a secondary source of vital vessel information that supports critical decision-making during manoeuvres.
Critical information source/data points	Get accurate Position, Heading, Rate-of-turn, COG, SOG and other useful data to create a stable image of the vessel on the chart display software with optional future vessel path predictions.
Situational awareness	Increased situational awareness of the vessel and it's surroundings made available on as many displays as required (to equip entire crew).
Portability	Information available on portable displays (tablets/iPads), allows the crew to easily walk around the bridge wing or any location that has been set up.
Extendibility	Add-on any number of screens to interface with HPF to provide the same accurate & real-time information to additional crew members for a synchronised operation. Add-on shore based data points from a server to the software to appear as integrated information to the user (with the original data points from the PPU).
Premium Quality	High quality sensors with advanced technology to form state-of-the-art systems that are accurate, reliable and user-friendly.
User-oriented, feature-rich software	A number of useful features to improve training, usability, safety and for personal enhancement.

HarbourPilot Fixed - Product Specifications

Physical Specifications

Dimensions	98.3 cm (19") W x 8.9 cm (3.5") H Rack Mounted Case (19 inch x 2U rack-mount enclosure)
Weight	~8kg
Power requirements	45Hz to 65Hz 1 Amp 88-132V AC/180-240V AC UPS option
Battery Back-up(*optional)	Rechargeable battery pack
Indicators	Master & Slave antenna reception, Heading status, Differential status, Communication link, Power 5V

Technical Specifications

Position source	mGNSS receiver tracking 1,100+ channels Constellations (configurable): GPS: L1CA, L1P, L1C, L2P, L2C, L5 GLONASS: G1, G2, G3, P1, P2 BeiDou: B1i, B2i, B3i, B10C, B2A, B2B, ACEBOC GALILEO: E1BC, E5a, E5b, E6BC, ALTBOC QZSS: L1CA, L2C, L5, L1C, LEX IRNSS: L5 Atlas
Correction source	SBAS enabled - WAAS, EGNOS, MSAS, GAGAN, SDCM Optional subscription based correction services
Position accuracy	Autonomous, no S.A: 1.2m SBAS: 0.3m Atlas H10: 0.04m Atlas H30: 0.15m Atlas basic: 0.50m RTK: 8mm + 1ppm
Time to First Fix (TTFF) (mGNSS receiver)	Cold Start 60s (no almanac or RTC) Warm Start 30s (almanac and RTC) Hot Start 10s (almanac RTC, and position)
Heading	Separation- 0.04° rms @ 2.0m antenna
Bow & Stern Velocity (SOG)	± 0.1m/sec (0.2Kn)
Rate of Turn	ROT Accuracy: <0.5°/min (1σ) ROT Precision : 0.1°/min
Pitch & Roll (optional)	Accuracy: <0.1° (1σ) Precision: 0.1°
AIS reception range	>10Nm (assuming optimal conditions)
Data output (NMEA/AIS)	GPGGA, GPHDT, GPROT, AIVDM, GPVTG and battery status (more on request)
Connectivity	Wi-Fi, RS-232, Ethernet, RS-485 (optional), USB (optional)

Environmental Specifications

Operating temperature	-32°C to +74°C (-25°F to +165°F)
Storage temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	95% (non-condensing)
RoHS	HarbourPilot Fixed meets the directive for Restriction of Hazardous substances

**Get real-time vessel information on portable displays
for the most critical ship-handling needs**

Real time vessel information on display with ECS



Docking



Navigation



**Route
Planning**



**Path
Prediction**



**Situational
Awareness**

HarbourPilot systems are used by many industries and customers world-wide. Some of these are:

The Royal Navy



HarbourPilot Lightweight on HMS Queen Elizabeth

Cargo Vessels



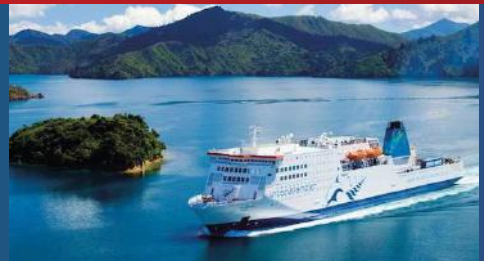
Ships pilots receive accurate data on portable displays

Offshore Oil and Gas operations



A fixed installation on the server rack on Banyu Urip FPSO

Commercial Vessels



HarbourPilot Fixed for the Interislander Ferry Services

Navicom Dynamics is an Auckland, New Zealand based manufacturer of precision navigation equipment.

We also provide the following services:

- In-depth Product Training
- Comprehensive Support Packages
- Full On-site Commissioning

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