



HTZ COMMUNICATIONS

Providing secure & reliable wireless connectivity in Ports

Network planning & optimisation from 8 kHz up to 1 THz

As the global maritime transport industry grows, so do the challenges port operators face managing radio networks within ports and along waterways. For over three decades, ATDI has worked with port operators, enabling them to manage legacy networks and support emerging radio technologies with their radio planning solution. It manages all radio technologies from a few kHz to 1 THz on one platform without additional modules. The tool simulates multiple radio technologies within the same project, allowing operators to plan, model and optimise their radio networks and minimise the risks of communication failures. This integrated solution manages the entire radio network lifecycle.

HTZ Communications features a comprehensive propagation engine with recognised ITU Propagation models for modelling all technologies. It supports every aspect of the network lifecycle, from the initial network scoping to full network optimisation.



RADIO NETWORK MODELLING
IN 2D AND 3D FORMATS

RADAR COVERAGE SIMULATIONS
TO GUARANTEE COVERAGE FOR
CRITICAL COMMUNICATIONS

COEXISTENCE MODELLING TO
REDUCE OR ELIMINATE THE
IMPACT OF INTERFERENCE
BETWEEN NETWORKS

AUTOMATED FREQUENCY
PLANNING (AFP) TO SELECT
THE BEST SITES TO MINIMISE
INTERFERENCE

INTERFERENCE CALCULATIONS TO
ANALYSE THE IMPACT OF
WIND FARMS ON SENSITIVE RADIO
COMMUNICATIONS EQUIPMENT
LIKE RADARS

AUTOMATED SITE OPTIMISATION
TO MAXIMISE COVERAGE AND
INCREASE NETWORK CAPACITY

ADVANCED MODELLING
CAPABILITIES TO IDENTIFY THE
BEST ANTENNA HEIGHTS
ABOVE SEA LEVEL

SUPPORTS RMS WAVE HEIGHTS,
WHICH CAN BE SET IN THE
PROPAGATION MODEL WINDOW

CALCULATES EMF EXPOSURE,
INCLUDING FIELD STRENGTH
EXPOSURE & IDENTIFYING
IF ICNIRP REFERENCE LEVELS
HAVE BEEN REACHED



Protecting the UK waterways

USER STORY, PORT OF LONDON AUTHORITY

The Port of London Authority (PLA) is responsible for the safe and efficient management of the tidal Thames, overseeing navigation, safety, and environmental protection along one of the world's busiest waterways. HTZ Communications' versatile capabilities played a pivotal role in supporting and optimising the diverse critical communications networks across the river.

HTZ supports all critical communications networks across the Port of London's territory, including:

- Marine VHF incorporating coverage analysis, interference and prospective site analysis. DMR for coverage analysis and planning of new sites.
- Radar coverage analysis, site overlap and analysis of the effects of new buildings and wind turbines on the existing infrastructure.
- UHF point to multipoint for scanning telemetry equipment.
- CCTV site coverage analysis.
- Support for license applications with UK Regulator, Ofcom.

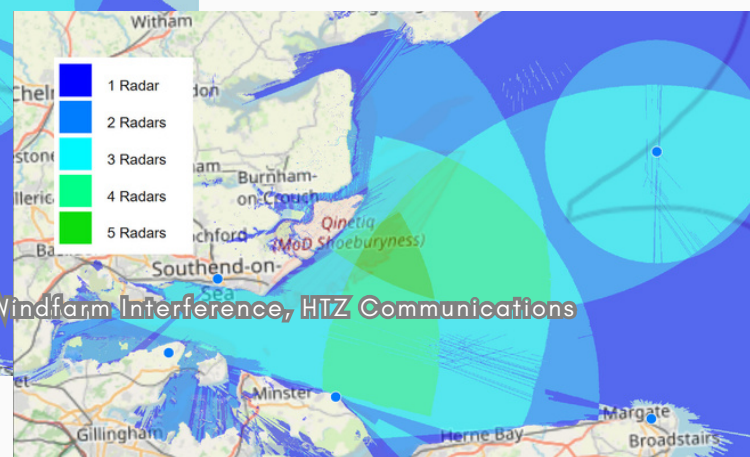
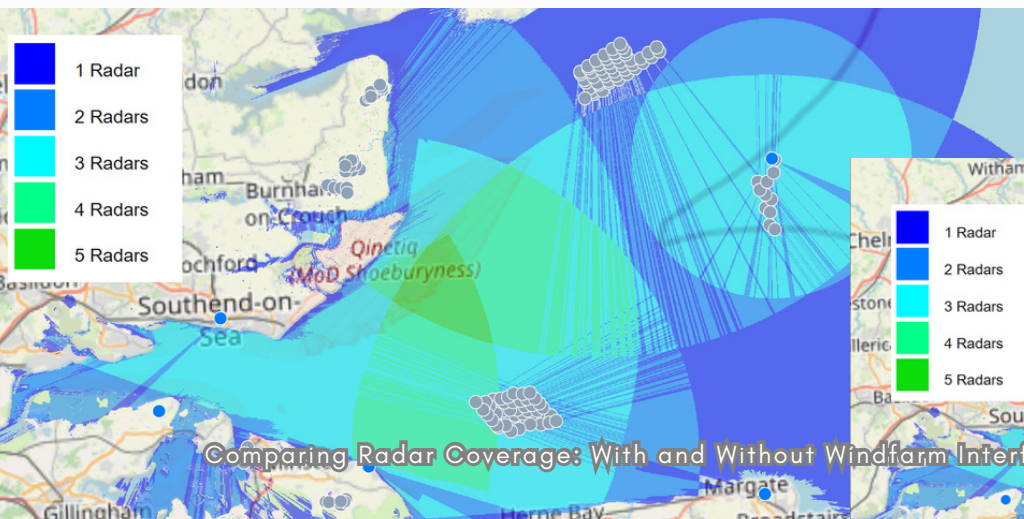
CONSULTANCY SERVICE

Our consultancy services span the full network life cycle from planning to optimisation. Network operators, system integrators and regulators rely on our expertise to supply a wide range of services.

With decades of man-years experience, our engineering services team stays ahead of the game and provides accurate RF engineering studies and customised support services.

MAP DATA

HTZ features a comprehensive GIS engine for the production and manipulation of cartographic data from diverse sources, including satellite images, aerial photographs, and paper maps. Users can download royalty-free maps from the ATDI cartography library or import their own data for conversion directly into the tool.



Comparing Radar Coverage: With and Without Windfarm Interference, HTZ Communications

PROTECT RADARS FROM WINDFARMS

- Radar Coverage Analysis: HTZ supports comprehensive radar coverage analysis along the river. This analysis is crucial for ensuring the safety of navigation, vessel detection, and traffic monitoring. It also aids compliance with regulatory requirements.
- Site Overlap Analysis: HTZ identifies areas with overlapping radar coverage. This ensures that there were no blind spots or gaps in radar surveillance, and enhancing navigation safety.
- Analysis of Building and Wind Turbine Effects: HTZ analyses the effects of new buildings and wind turbines on existing radar infrastructure. This ensures that developments in the vicinity do not compromise radar performance.